DETERMINANTS OF UTILIZATION OF NATIONAL HOSPITAL INSURANCE FUND OUTPATIENT SERVICES BY PRIVATE UNIVERSITY EMPLOYEES IN NAIROBI

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HSM-3-3955-3/2014

A THESIS SUBMITTED IN PARTIAL FULFILLMENT FOR CONFERMENT OF DEGREE OF MASTERS OF SCIENCE IN HEALTH SYSTEMS MANAGEMENT OF KENYA METHODIST UNIVERSITY

SEPTEMBER 2019

DECLARATION

This thesis is my original work and has not been presented for a degree at any other University.

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DEDICATION

To my late parents Mr and Mrs Ephraim Kironji for teaching me the value of hard work, my dear husband Mr. Peter Muthari my number one cheerleader and our children Maureen, Titus and Timothy for your love, support and prayers.

ACKNOWLEDGEMENT

I wish to express my sincere gratitude and complements to all who have assisted me in this study. To God, my dependable helper and hope at all times. I acknowledge the assistance of Dr. Wanja Mwaura-Tenambergen and Ms Eunice Mwangi my supervisors for tirelessly reading, giving guidance to my work and advising me professionally and academically. To all staff at Kenya Methodist University who taught me and guided me in my research work. My family members, who have given me physical, emotional and financial support as I was doing this work, thank you. To my friends and fellow students who have given me advice in one way or the other. The management of the private Universities in Nairobi that allowed me to conduct the research in their institutions and all staff in these institutions who responded to my research questions, thank you all.

ABSTRACT

The NHIF is a mandatory health insurance fund covering public and private formal sector workers and their dependents as the main health insurer in Kenya. NHIF has embarked on an ambitious reform program intended to convert it to a Social Insurance Health Scheme with an aim of serving as workers' first pillar of social insurance. The national formal scheme members are entitled to all outpatient services after selecting their preferred facilities from a list of the NHIF accredited ones. However, there are some members on the National formal scheme whose contributions are remitted to NHIF by their employer every month but do not utilize the outpatient services. This study sought to determine if the NHIF benefit package, the perceived quality of care, the NHIF communication strategy and the administrative processes influence utilization of outpatient services by the national formal scheme members in Nairobi County with a focus on private University employees. It sought to assess the reasons for non or underutilization of NHIF outpatient services. This study adopted a cross-sectional descriptive design. Multistage sampling with simple random sampling was used. Quantitative data was corrected using self-administered questionnaires and analyzed using descriptive statistics. Likert and semi-structured type of questions were used as the main tool for collecting data. SPSS version 24 was used to analyse the data. The rationale of this study was to inform top management of NHIF to undertake decisions in regards to utilization of outpatient services by NHIF members in the formal National Scheme by understanding how quality service, benefit package, NHIF communication strategy and administrative processes influence utilization of outpatient services. The study finds that respondents have and will utilize NHIF outpatient services (M=3.80, SD= 0.84). They agree with NHIF administrative processes (M=3.4, SD= 0.89) and have knowledge of NHIF benefit package (M=3.42, SD= 0.82). They disagree with quality of NHIF outpatient services (M=3.21, SD= 0.66) and NHIF communication strategy (M=2.94, SD= 0.73). The study found that knowledge of NHIF outpatient benefit package (X_1; t = 1.142, p = 0.255 > 0.05), perceived image of NHIF outpatient services (X_2; t = 1.196, p = 0.241 > 0.05) and NHIF communication strategy (X_3; t = 1.196, p = 0.241 > 0.05) have no influence on utilization. However, NHIF administrative processes (X_4; t = 4.579, P = 0.000 <0.05) positively contribute to and have a significant influence on utilization of NHIF outpatient services by private university employees in Nairobi county. The study recommends that a) NHIF creates awareness on the NHIF outpatient benefit package to the members, b) NHIF should vet facilities they accredit to offer outpatient services to ensure safety of healthcare services, availability of physicians, sufficient number of health workers and a well-stocked pharmacy, c) NHIF should improve on their means and frequency of communication, feedback and complains mechanisms, engage the citizens more for improvement and ensure staff are available to respond to issues, and d) Staff in NHIF accredited facilities should be made aware of patient's entitlement to care, ease patients identification and facility selection process. This will strengthen health systems and thus improve utilization of primary health care services.

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LIST OF ABBREVIATIONS

CHIP	Child Health Insurance Plan
CBIH	Community Based Health Insurance
KeMU	Kenya Methodist University
KHHEUS	Kenya household health expenditure and utilization survey;
LMIC	Low and middle-income countries
MDGs	Millennium Development Goals
MDS	Millennium Development Goals
MOH	Ministry of Health
NACOSTI	National Commission for Science, Technology and Innovation
NHI	National hospital Insurance
NHIF	National Hospital Insurance Fund
NHIS	National Hospital Insurance Scheme
NIS	National Insurance Scheme
OOP	Out of pocket payments
OOPEs	Out of Pocket Expenditures
PEI FLHSN	Prince Edward Island French Language Health Services Network
PHI	Private Health Insurance
RESYST	Resilient and Responsive Health Systems
SERC	Scientific Ethic Review Committee
SPSS	Statistical Package for Social Sciences
UHC	Universal Health Care
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The World Health Organization [WHO], (2007) calls for greater and more effective investment in health systems and services to be able to achieve national and international goals – including the *Strategic Development Goals* (SDGs). WHO (2007) developed a single framework with six building blocks that provide a useful way of clarifying essential functions of the health systems like health financing. These are: service delivery; health workforce; information; medical products, vaccines and technologies; financing; and leadership and governance (stewardship). The WHO ((2007) states that a good health financing system raises adequate funds for health, in ways that ensure people can use needed services. The system also ensures that people are protected from financial catastrophe or impoverishment associated with having to pay for them and provides incentives for providers and users to be efficient.

WHO (2007) further estimate that some 100 million people become impoverished and a further 150 million face severe financial hardship every year as a result of health care payments (WHO, 2005). The universal health coverage (UHC) aims at ensuring that every individual and community receive the health services they need without risking financial hardship irrespective of their circumstances. In the last 10 years or so, calls for increased efforts to achieve UHC have grown noticeably. In line with this, WHO (2010) on Health systems financing noted that countries across the world are implementing reforms geared to accelerating progress towards UHC. WHO (2010) further asserts that one of the barrier to access health care is the means of health care financing that results to increased likelihood

of impoverishment of households. Developing countries such as Kenya are mainly affected especially because direct payments (out of pocket payments) form a greater proportion of the sources of health-care financing.

According to Health Financing profile (2016), in Kenya health care is provided through a mix of public (49%) and private providers (48%). Public providers are tiered ranging from community health services: dispensaries, health centres, county hospitals all managed by county governments and finally national referral hospitals. According to National Health Insurance Fund [NHIF] (2018), 15% of Kenya's total population is insured by NHIF which is about 88.4% of all persons with health insurance in Kenya. NHIF (2018) indicate that principal members have increased from 4.7million (2013/2014) to 7.6 million (2017/2018) translating to about 30 million members including dependents. Membership to the NHIF is compulsory for all formal sector workers, and voluntary for the informal sector.

NHIF finances healthcare in 3 schemes; the first category is the national scheme which covers formal employees, i.e. those in permanent and pensionable employment (private university employees fall under this category, informal sector workers (self-employed) and sponsored members (the aged, poor, retired). Civil Servants Scheme and the armed forces scheme are the other categories. Other financing options available in Kenya include out of pocket payments (OPPs), private health insurance, donor funds to the government, private not-for profit organizations and community based health insurance. The focus of this study is the National Scheme formal employees with particular interest on private University employees in Nairobi County.

All Kenyans who have attained the age of 18 years are open to have NHIF. The minimum salary from which contributions are made was raised to KES 5,999 contributing KES 150 each month. For those earning more than or equal to KES 100,000, the top contribution of KES 1,700 was set effective April 1st 2015 (NHIF, 2015). This increased premium contributions fivefold. In the informal sector, contributions were increased from KES 160 to KES 500 per household (NHIF, 2015). This change in contributions is accompanied with an enhanced benefit package. The benefit package includes outpatient care and other services such as health promotion and disease screening (Munge, Mulupi, & Chuma, 2015).

The mandate of NHIF is to provide to all registered members including their dependents social health insurance coverage in line with the NHIF Act of 1998. The law mandates those employed in the formal sector to enroll with the NHIF although in the recent years NHIF is covering those in the informal sector and the indigent population. Based on capitation basis payments are made based on the number of persons registered at a particular facility. Further, the NHIF website indicates that capitation is between KES 1000 and KES 1400 per beneficiary (Ongiri, 2015). The fund accredits all levels of health facilities which include: national referral hospitals; county hospitals; health centers; dispensaries; specialized clinics; diagnostics centers (imaging and laboratories); pharmacies, and accredited drugs dispensing outlets (ADDOs).

1.2 Statement of the Problem

According to NHIF, the fund has 7.6 million (2017/2018). Of this number, those covered among formal sector workers was about 99 %. Taking an average family size of four

people, this translates to coverage of about 30 million beneficiaries. There has been principle membership growth from 2013/2014 to 2017/2018 financial year from 4.7 to 7.65 Million members. National Scheme members contribution increased from 29.8 Billion to 32.9 Billion in the same period and expenditure on outpatient services increased by 48% (5.07 to 7.5 Billion Kenya shillings) (Muriithi, 2016).

WHO (2007) report indicates that approximately 150 million people suffer from financial catastrophe annually because of out-of-pocket expenditures (OOPEs) on health. Ministry of Health [MOH], (2013) reports an inconsistent spending on OOP rising from 2007 to 2013 to KSh. 61.5 billion; outpatient care accounted for approximately 78% (KSh. 48.4 billion). Other studies have found OOPEs as a proportion of total health expenditures remains elevated. A study in Ghana by Okoroh et al. (2018) found National Health Insurance Scheme (NHIS) total health expenditure at 26%, exceeding the WHO's recommendations of less than 15–20%.

NHIF has embarked on an ambitious reform program intended to convert it to a Social Insurance Health Scheme with an aim of serving as workers' first pillar of social insurance. The NHIF reports that this campaign is ongoing and relevant legislation is in existence, has expanded the benefit package and promises the members a package that is of professionally acceptable standards that can promote and sustain good health, that is cost effective without making the fund financially unsustainable and delivered in a culturally acceptable manner to enrolled Kenyans and other residents.

Despite all these benefits and institutional reforms, there are some members on the National formal scheme whose contributions are remitted to NHIF by their employer every

month yet under-utilize the outpatient services. This prompts the researcher to find out factors that influence utilization of NHIF outpatient services by this group of people. This study therefore seeks to determine if NHIF benefit package, perceived quality of care, NHIF communication strategy and NHIF administrative processes influence utilization of outpatient services by the national formal scheme members in Nairobi County.

1.3 Broad Objectives

The broad objective was to establish factors that determine utilization of NHIF outpatient services by private University employees in Nairobi County.

1.4 Specific Objectives

i. To establish the influence of NHIF benefit package on utilization of outpatient services by private University employees in Nairobi County.
ii. To determine the influence of perceived quality of NHIF services on utilization of outpatient services by private University employees in Nairobi County.
iii. To determine the influence of NHIF communication strategy on utilization of outpatient services by private University employees in Nairobi County.
iv. To establish the influence of NHIF administrative processes on utilization of outpatient services by private University employees in Nairobi County.

1.5 Research Questions

i. What is the influence of NHIF benefit package on utilization of outpatient services by private University employees in Nairobi County?

ii. What is the influence of perceived quality of NHIF services on utilization of outpatient services by private University employees in Nairobi County?

iii. What is the influence of NHIF communication strategy on utilization of outpatient services by private University employees in Nairobi County?

iv. What is the influence of NHIF administrative processes on utilization of outpatient services by private University employees in Nairobi County?

1.6 Justification of the Study

Health insurance coverage is about one in five Kenyans; (17.1%) had some form of health insurance coverage according to Kenya household health expenditure and utilization survey; MOH (2013). NHIF was the most prolific of all the existing providers covering over 88 percent of the insured. Private insurance (covering 9.4% of those insured) was the second largest insurer followed by community-based insurance (1.3%). The study further says there was a steady rise in use of outpatient care between 2003 and 2013. There was a 35 percent increase in average utilization rate per capita from 2007 to 2013. The report found an inconsistent spending on OOP which rose to KSh 61.5 billion (2007 to 2013). Of this increase in OOP, approximately 78% (KSh 48.4 billion) was accounted by outpatient care. In general, females, older segments of the population, urban households and those with college and university educations spent the most on outpatient services.

MOH (2013) report found outpatient visits per capita were almost accounted equally by the insured and uninsured. This means that health insurance coverage did not significantly affect whether someone sought outpatient care or not. Demand for outpatient care could not be significantly explained by insurance coverage. However, in some instances, health

insurance enhanced access to inpatient healthcare. This study seeks to find out the outpatient health seeking behavior of private university employees under the NHIF national formal schemes and if NHIF benefit package, perceived quality of care, NHIF communication strategy and administrative processes influence utilization of these services.

1.7 Limitation and Delimitation

1.7.1 Limitation of the Study

One of the limitations of the study is minimal prior research studies on utilization of health insurance among the formal employees. Much of the reviewed literature is on the informal sector. This study thus relied on general utilization of health insurance. The study was done among private university employees who are NHIF National formal scheme members in Nairobi County. Many of these members have private health insurance by their employers and thus may affect the results of the study given they have a choice on the provider to use.

1.7.2 Delimitation of the Study

The scope of the study is limited to private University employees who are all members of National Formal Health scheme in Nairobi County. They are all deducted a monthly premium for NHIF by their employer and therefore all qualify for outpatient health services. They are very likely to give very open feedback that is non-biased. Based on the literature review, the researcher investigated only four variables where they identified gaps, however, there could be many other variables affecting utilization.

1.8 Significance of the Study

The findings of this study informs top management of NHIF to undertake decisions in regards to utilization of outpatient services by NHIF members in the formal National Scheme by understanding how quality service, benefit package, NHIF communication strategy and administrative processes influence utilization of outpatient services. The study has established ways of improving outpatient services to improve health outcomes and improve universal health care. The findings may be used to sensitize key policy makers in government, especially ministry of finance and health by appreciating the findings on how policies set by the government through these ministries affect the NHIF services utilization.

1.9 Assumptions of the Study

The study assumes that the benefit package for the formal sector is the same as that for the informal sector. It also assumes that the benefits of the utilizers are the same as that of the non-utilizers in the formal sector. Based on the target population, the researcher assumes that the respondents were as honest as possible.

1.10 Operational Definition of Terms

Administrative processes	Actions or steps to be taken in order to receive the healthcare services.
Benefits package	The total of health services that a member is entitled to for the premium paid to the Fund. It refers to the extent to which customers feel that NHIF outpatient services meet their needs.
NHIF communication strategy	How important information from NHIF reaches the members and the feedback mechanisms in place.
Out of pocket	Fees paid by patients in through personal savings for healthcare services
Outpatient services	Medical procedures or tests that can be done in a medical center without an overnight stay.
Perceived quality	How the outpatient services meet their expectations in terms of safety, continuity, interpersonal skills with health care workers, availability of basic health amenities (laboratory, chemist, waiting bay, and treatment room), physical outlook and location of the capitated health facilities.
Private University	All Universities operating within Nairobi County, either as a main university or a satellite campus and are not owned by the government. They could either be chattered or not.
Universal Health Care (UHC)	Capacity for all people and households to use health services they need which in their perception is of sufficient quality and effective, while also making sure that these services do not expose the them to financial hardships.
Utilization of Healthcare	How NHIF formal scheme members select facilities they desire to receive healthcare services, inclusion of dependents in the card and uptake of NHIF outpatient services through visiting the selected

facilities for treatment when they or their dependents are ill.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section comprises the literature review as per the study objectives, theoretical framework and conceptual framework. The literature has reviewed the benefit package, the perceived quality of outpatient services in NHIF capitated facilities, NHIF communication strategy, NHIF administrative processes and utilization of healthcare services. Very few studies were found on utilization of national insurance by the formal sector. The reason for low study in this area could be the assumption that since registration with NHIF is compulsory by the formal sector in almost all countries, then utilization if definite. Therefore, this research literature focuses on utilization of NHIF outpatient services which could as well reflect the formal sector phenomena. Client's utilization of services is one indication of their satisfaction with services offered. However, utilization of services could also be a result of lack of alternative services.

2.2 NHIF Benefit Package

NHIF has defined membership benefits to include coverage of inpatient expenses (costs of bed, meals, treatment and drugs). The type of health facilities (Hospitals, Nursing Homes and Dispensaries), (Sundays, Ngaira & Mutai, 2015) largely determines the share of expenses covered. A study by Ngatia (2008) found there is an ever increasing demand and expectation for better services, better products and nearness to service points by customers and other stakeholder. Therefore, in its mandate of providing affordable and accessible health care insurance to the Kenyan populace, NHIF has started initiatives to achieve increased efficiency and effectiveness (Ngatia, 2008).

2.2.1 Knowledge on NHIF Benefit Package

The NHIF website indicates that due to lack of understanding of the NHIF benefit package, the health care providers, NHIF partners in service delivery and members have expresses skepticism towards NHIF cover. The NHIF benefit package is critical and key component in the implementation of the Universal Health Cover. In line with NHIF Strategic Plan 2014-18, the Fund has continued to review the benefit package to members resulting to introduction of new packages. This was done in 2016 after the review of monthly contribution rates. The current benefit package include outpatient, inpatient, maternity package, renal dialysis, kidney transplant, radiology package(MRI&CT scan), oncology package (cancer treatment – chemotherapy & radiotherapy), rehabilitation, drug and substance abuse package, foreign treatment package, chronic diseases (diabetes& hypertension), specialized lab tests, and surgical package (minor, major & specialist). (NHIF, 2018).

NHIF (2018) indicates that it is all inclusive; it has no exclusions for all medical conditions except cosmetic procedures, no upper age limit for members to join, and no limitation on the number of declared dependents. The NHIF benefit package structure allows members to supplement this package by either private insurance or direct co-payment. This is on recognizing that members are diverse and those with high incomes may require services that are more expensive than those covered by this benefits package (NHIF, 2018).

Study by Mbogori, Ombui and Iravo (2015), found that health is a basic human right as enshrined in the 2010 Kenya constitution. The study found that due to the challenge of defining the benefit package in such a manner that members can understand what they are

entitled to, staff can understand what they are selling; & the healthcare providers can understand what services they are to offer to the members, only the financially able individuals can access good health care.

Other factors found to hinder people from utilizing health services were inadequate benefit packages and high co-payments. This was in a study on community perceptions of health insurance and their preferred design features by Mulupi, Kirigia & Chuma, (2013). The study concluded that when people are likely to accept something more if they understand key concepts of the thing and how it work. Communities therefore needs to be sensitized to understand key concepts, engaged to promote awareness and their application as the country continues to design an appropriate NHIS and find solutions to the ailing health system.

On the preferred components of the benefit package, results of Mulupi et al. (2013) further indicated outpatient services was ranked number one priority by17.5% of respondents. Majority of the respondents ranked inpatient care as the number one priority. 46.7% of the household survey indicated that these services should be fully purchased by the NHIS should it come into existence. Those services given first priority by 29.6% were chronic conditions and specialized clinics. Maternity care was only ranked first by 6.2% of respondent. It was clear that people preferred a comprehensive package that included both inpatient and outpatient services although inpatient services were perceived to be more deserving compared to outpatient care.

A study in Tanzania by Chomi, Mujinja, Enemark, Hansen & Kiwara (2014) examined decision to seek care when ill and the choice and timing of health service providers. The

findings call for creation of opportunity for risk and income cross-subsidization that will also promote the development of a standard benefit package. A study by Ngatia (2008) established that NHIF customers were satisfied with the products offered by NHIF but would like NHIF to have more products.

2.2.2 Alternative Financing Options

According to Healthcare Financing options for Kenya 2013/14–2029/30 policy, government tax revenues and loans, social health insurance contributions, private insurance contributions and OOP expenditures form the main contribution mechanisms for any healthcare financing system. Donor contributions are also a major source of healthcare financing in a developing country context. The NHIF covers over 88% of the insured thus the most prolific provider. The second-largest insurer was private insurance covering 9.4% of those insured, followed by community-based insurance (1.3%).

In Korea, a study was done on effects of public and private health insurance on medical service utilization in the National Health Insurance System. Those covered by medical aid (private) were respectively 2.26 and 1.23 times more likely to receive inpatient care and outpatient care than those who were covered by NHI (public insurance). Those were covered by both medical aid and PHI were respectively 2.38 and 1.25 times more likely to receive inpatient care and outpatient care than those who were covered by only NHI when the interaction term of type of insurance was included in the model. The effect is moral utilization hazard where patients overuse medical services under national health insurance (NHI) because the services are free or the patients are required to pay only a portion of the utilization costs.

2.3 Perceived Quality of Outpatient Services

According to Mulupi et al. (2013), perceived poor quality of services at NHIF accredited facilities was a major factor contributing to drop out rates and discouraging people from joining health insurance schemes. Other issues raise by respondents were lack of laboratory equipment and x-ray machines poor service provision, corruption (and conflict of interest), discrimination of patients according to scheme membership, long waiting times, and or perceived socioeconomic status. Poor hospitality including rude hospital staff and poor diet, inadequate ward facilities (overcrowded wards, inadequate bedding, worn-out patient uniforms) were other complains mentioned.

A health services research found gaps in our knowledge regarding which services, for which patients, will actually improve the likelihood of desired health outcomes results to complexity in measuring quality. Also, measurement of quality of care is complicated by the fact that patients need not have the same desired health outcomes and therefore might not receive the same care for an identical health problem (Steinwachs & Hughes, 2008).

Significant perception differences on the selected healthcare quality indicators by clients and health staff were seen in studies in Ghana comparing perceived and technical healthcare quality in primary health facilities. Overall, in contrast to clients, health staff perceived many of the quality care indicators to be satisfactory in the NHIS-accredited health facilities. Other perceptions gaps were on compassion and supportiveness of health personnel (Alhassan et al., 2015).

2.3.1 Safety of Health Care Services

Medical errors were reported by IOM report; *To Err Is Human* to have caused hospital deaths of 46,000 and 98,000 Americans each year. Patients should not be harmed by health care services that are intended to help them. The main reason behind this was reported to be lack of systems that prevent errors from occurring and/or prevent medical errors from reaching the patient but not due to lack of dedication to quality care by health professionals (Steinwachs & Hughes, 2008).

Studies by Mulupi et al. (2013) found that health insurance schemes offered financial protection to members, making members feel at ease when their relatives were in hospitals and building on solidarity to help other community members thus perceived to have many advantages by both members and non-members. It was reported that in the future, due to the harsh economic conditions, community members would be reluctant to contribute towards helping families to clear hospital bills. Health insurance will be the only way of ensuring that such people can pay for health care. This study concluded that some concerns expressed were about quality of care, particularly related to availability of drugs, patient-provider interactions, long waiting times and discrimination against CBHIs members thus a wide dissatisfaction with the current public health system.

2.3.2 Waiting Time to Receive Healthcare

According to a study by Steinwachs & Hughes (2008), delays in obtaining an appointment and waiting in emergency rooms and doctors' offices is associated with seeking and receiving health care behavior. People are denied critically needed services or health conditions progress

and outcomes worsen for failure to provide timely care. Health care needs to be organized to meet the needs of patients in a timely manner.

In 2012, researchers compared the performance of private and public healthcare systems in low-to-middle income countries like Kenya. Wait times were consistently shorter in private sector than in public sector facilities as shown in their reviewed of the literature. The same research found far more likely to experiences in limited availability of equipment, medications and trained workers in public healthcare services than their private counterparts thus lower quality service

A similar study in Ghana as reported by Mulupi et al. (2013) showed those that had insurance had longer waiting time at health facilities; they were being discriminated by providers than the non-insured and they were being asked to buy drugs at private pharmacies thereby incurring additional costs or they were receiving low quality drugs. At the same time, verbal abuse was also a vice they reported being subjected to. Negative perceptions impact on trust in the public health system and hinder progress towards universal health coverage. Mulupi et al. (2013) concluded that it was important that the concerns raised regarding poor quality of care are addressed particularly in the public sector before implementation of the NHIS in Kenya.

2.3.3 Healthcare Providers Interpersonal skills

Patient-centered care recognizes that to provide high-quality care it is essential that health care services is personalized for each patient, their needs, values, and preferences listened to and be coordinated. The family and friends on whom the patient relies should be

involved, and care should provide physical comfort and emotional support (Steinwachs & Hughes, 2008).

A study by Fotso and Mukiira (2012) reported that public providers of maternal health services in urban Kenya are not only frequently unfriendly to women, but also tend to display behaviors of harassment and mistreatment of women, regularly fail to answer their questions and to ask them for important routine information. By contrast, traditional birth attendants and other informal provider's foster strong relationship with the women who seek maternity, build trust and confidence, which ultimately contribute a positive influence on women's utilization of these facilities for delivery.

2.3.4 Physical Outlook and Location of Healthcare Facilities

Studies on physical accessibility and utilization of health services in Yemen concluded that distance to health facility influenced the level of healthcare utilization. Driving distances, driving time and straight-line distances are strongly associated with vaccination uptake. Straight-line distances can be used to assess physical access to health services where data inputs on road networks and transport are lacking. Impact of physical access means greater efforts to target vaccination and other preventive healthcare measures to children who live away from health facilities in Yemen (Al-Taiar, Clark, Longenecker & Whitty, 2010).

2.3.5 Amenities at Healthcare Facilities

Study by Okech and Lelegwe (2015) revealed that dilapidated health infrastructure and limited appropriate equipment was a major challenge in most public hospital. As a result, the study indicated it was a challenge for public health facilities to retain key health

personnel especially specialized ones thus negatively impacting on care. The result is patients being forced to seek alternative health care services from less qualified health personnel or providers whose quality may not be guaranteed. While NHIF is pursuing and enhancing financial risk protection, these patients negate the gains by seeking services from private facilities which may be relatively expensive.

Study by Okech (2016) found that most of medical equipment used in public health facilities is more than 20 years old (some double their lifespan) and characterized by frequent breakdowns. Availability and functionality of diagnostic and medical equipment is critical in treatment. Modern equipment such as dialysis machines, radiology equipment, laundry machines and theatre equipment lack in most public facilities while the available equipment falls far short of the required numbers. The study found that of those available, equipment, about 50% is too old to pass required standards and that their maintenance of has been inadequate.

A study by Fotso and Mukiira (2012) indicated that women seem to worry about the conditions of the waiting, examination and delivery rooms, number of nurses and midwives, the effectiveness of equipment, doctors' and midwives' competence and suitability to perform deliveries and access to drugs; and to a lesser degree, about the time devoted to patients.

2.4 NHIF Communication Strategy

2.4.1 NHIF Channels and Frequency of Communication

Research by Greising, Pierce, Yonek, Kang & Hasnain-Wynia (2006) indicates that ability to obtain consent results due to communication challenges. Subsequently, other areas negatively affected by communication challenges include ability for health professionals to meet their ethical obligations and participate in preventive measures, access to treatment, quality of care including hospital admissions, quality of mental health care, diagnostic testing, medical errors, patient follow-up and patient safety.

The effects of communication challenges on health care delivery have been considered in other countries. The Institute of Medicine of the National Academies in the United States found health disparities, adverse health outcomes and reduced quality of care were found as a result of communication challenges. Subsequently, there was evidence that use of expensive diagnostic tests increased, use of emergency services increased, use of primary care service decreased and patient follow-up when such follow-up is reduced. All these were found to be contributed by communication challenges (Greising, et al., 2006).

Study by Munge et al. (2015) noted that there is no policy guideline in Kenya to inform patients on their entitlement and obligations to NHIF. NHIF members are required to notify the scheme within 24 hours of admission to a hospital, and to present valid identification documents and their NHIF membership card. The NHIF Act does not make specific provision for a complaints mechanism or the collection of views and reflections of

members/citizens. The official website however has links for contacting the fund, including a toll free phone number.

To assess the service needs, preferences and values of the population and use them to specify service entitlements/benefits rates, it was noted that NHIF uses customer satisfaction surveys and commissioned surveys to determine client needs. Feedback received from Board members and of analysis of claims data are also used. However, there is recognition that citizen engagement is an area that needs improvement. For example, media reports suggest union leaders and employers, who make up part of the NHIF Board, are unhappy with the process of implementation of new premium (Ongiri & Kubani, 2015).

The study by Ongiri & Kubani, (2015) further reveals that the NHIF displays its benefits and list of accredited providers on its website and has taken out newspaper, television and radio adverts with the aim of increasing awareness of its products. It also has forums with stakeholders including providers and employers. In addition, its compliance officers engage with employers to ensure that they are aware of what NHIF offers. How this extends to employees within these organizations is not clear, however NHIF members must utilize their card to access entitlements. Outpatient services can only be accessed at the provider facilities selected by the members.

2.4.2 NHIF Language of Communication

A study by Prince Edward Island French Language Health Services Network [PEI FLHSN], (2007) found compelling evidence that initial access to health services are adversely affected by communication challenges. Lower use of many preventive and

screening programs, limited encounters with physicians and hospital care, barriers to health promotion, limited first contact with a variety of providers and disease prevention programs were other challenges faced by those facing language barriers. Whether a doctor had discussed mammography with the women predicted whether women of all racial groups had a mammogram. Language was thus found as strongly correlated with whether the physician discussed mammography with the woman or not. The result was those facing language barriers also faced challenges on poor access to mammograph.

A British study of participation in cervical screening programs by Naish, Brown and Denton (1994) found that language and administration were seen to be barriers to participation by clients as reported by physicians. It also resulted to lack of interest in prevention programs. Language ability also predicted the use of screening services (Solis, Marks, Garcia & Shelton, 1990). These two studies suggested that the effect of language on screening practices was an access factor as there was increased use of screening programs where the English language was used.

French speakers were significantly less likely to receive breast examinations or mammography (Woloshin, Swartz, Katz & Welch, 1997). The study analyzed self-reported utilization data from the 1990 Ontario Health Survey on Pap screening, mammography and breast examination. These results persisted even when adjusted for social and economic factors, contact with the health care system, and measures of culture. The study concluded that determination of what language assistance is required to communicate effectively with the populations should be a priority within an organization. Organizations should also train its workforce to access and use language assistance resources.

2.4.3 NHIF Feedback Mechanisms

Studies by PEI FLHSN (2007) revealed dissatisfaction with service entitlement, information on access to providers and cover for extended families and indigents within the community. NHIF website provides an email address and phone contact for use by beneficiaries on effective mechanisms to receive and respond to complaints and feedback from the population. Newspaper advertisements, and interviews, specify that the phone line is toll free and operates 24 hours a day. There is a dedicated customer service department that is to be automated to support complaints resolution, at head office and branch level too. The NHIF publishes its financial reports online and in major newspapers. Audit reports on these statements are published by the Kenya National Audit Office. Other measures of performance are not included on the reports.

2.5 NHIF Administrative Processes

Research on the effect of administrative complexity on the cost of health care in the United States was done. The study concluded that factors that would lend a significant hand in reforming the current U.S. healthcare system included the creation of a national oversight commission to monitor and regulate healthcare administration, uniform and non-duplicated credentialing and certification applications, standardized legislative action, and the implementation of unvarying electronic billing and recording systems (Ivey, 2006)

2.51: Process of Dependents Registration by NHIF

While registering dependents, NHIF requires that a person provides the following a copy of national identity card (including spouse if applicable, copy of employer appointment letter, colored passport photograph including spouse and dependents if applicable and original and copies of birth certificates of dependents. The NHIF website indicates that a member is required to select some capitated facilities where they wish to receive treatment. In case a member wants to change the facility, there is also a form one needs to fill detailing reasons for change and other relevant documents including passport photo.

The results of a study by Ngatia (2008) indicated that NHIF should enhance their scope to cover indigents and orphans and that NHIF should diversify to offer a range of health insurance products. It was established that the biggest challenges faced by NHIF customers were: long queues during payment, offices are crowded and few in town" slow operations, some hospitals are not covered i,e private hospitals, children above 18 who are dependents are not covered.

In Kenya, a member of the National scheme is required to register their dependents as beneficiaries of NHIF. The number of dependents is limited to unlimited own children and one spouse. This process is voluntary and a dependent may only receive treatment on registration by the principle member. A study by Mohammed et al. (2014) on user experience with a health insurance coverage and benefit-package access in Nigeria found that inclusion of dependents is restricted to four biological children and a spouse per user. Non-inclusion of family members hindered effective coverage by the scheme.

Research in Tanzania by Chomi et al. (2014) revealed that probability of seeking care and reduced delays is increased by health insurance. However, the probability, timing of seeking care and choice of provider varies across the members. In their study on health insurance utilization and its impact among the middle-aged and elderly in china found that insurance utilization is associated with some types of expenditure. In addition, it was found that even with health insurance utilization OOP cost was still high. Household's wellbeing is a profound and long-term impact of high OOP cost (Wang et al., 2013).

2.5.1 Process of Identity Verification during Service

For effective management of membership database and to enhance efficiency in settling claims, NHIF operations have been computerized and decentralized. Once at the facility to receive care, the service provider has to identify the NHIF member or the dependent and determine their NHIF benefits for services rendered. This is through a list submitted to the facility by NHIF or networked software shared by NHIF with the healthcare facilities. To ease this process, NHIF has increased its service accessibility through the current networked. There are currently 63 fully-fledged branches, 35 satellite offices and service points' at most County hospitals countrywide. The branches function independently to offer services similar to any other office across the country.

2.5.2 Process of Outpatient Facility Selection by Members

All NHIF members have to fill a form selecting a medical facility where they would want to receive outpatient care. According to the NHIF website, health facilities have been

contracted country wide to provide the services under the national scheme. Members are restricted to one hospital.

A 2015 working paper by research consortium RESYST analyzed the purchasing decisions of Kenyan health providers. It found that the NHIF often failed to rigorously assess the facilities it contracted, whereas PMI providers made active decisions on which facilities to contract based on geographical access, quality, cost and capacity. While the NHIF has regulations to delist poor performing hospitals, RESYST noted that because the hospital was the only public provider in under-served areas, penalties were often difficult to enforce.

A study by Eisert and Gabow (2002) assessing the effect of child health insurance plan (CHIP) enrollment on utilization of health care services by children using a public safety net system , the study indicated that children who are enrolled in CHIP are less likely to use emergency care more likely to receive preventive care services than uninsured children. This is while even when emphasizing the benefits of public insurance programs for children within a safety net institution.

2.6 Utilization of NHIF Outpatient Healthcare Services

Research in Ghana by Bonfrer, Breebaart and Van de Poel (2016) found that as a result of NHIS enrollment, of children whose mother obtained at least four antenatal care (ANC) visits, had a skilled health care worker present during birth and that were born with a caesarean section significantly increased. Subsequently, there was a modest improvement in maternal health care utilization and significantly lower rate of pregnancies reported as

too soon or unwanted among the insured. This was despite the fact that family planning services are not covered by the NHIS. Increased enrollment in the NHIS was thus the result caused by spill-over effects; that is services provided alongside maternal and infant care, family planning advice and or a general increased awareness about the availability of health care services, including family planning.

In the informal sector Sundays et al. (2015) found the following as some of the factors that determine uptake and utilization of NHIF medical cover: quality of public health facilities services covered by NHIF scheme is poor, low impression of NHIF services, domain of services and illness that NHIF policy covers is limited, poor recruitment by NHIF & restriction on type of health care services for NHIF enrollees, and poor dissemination of information on the benefits of the scheme. This is mainly due to poor technical assistance in insurance domain knowledge, cumbersome procedures for enrolment and uploading of monthly contributions, mistrust about the insurance scheme, misconceptions about procedures at NHIF accredited facilities, poor comprehension and knowledge of the features of insurance covers and risk awareness, benefits of scheme, corruption and fraudulent claim payment to hospitals.

2.6.1 Visit to NHIF Accredited Facilities for Outpatient Services

Research in South Africa by Ataguba and Goudge (2012) concluded that private health services use is increased by insurance coverage increases. Though this is as would be expected there is no significant effect on the use of public services. Lower OOP payments for scheme members compared to non-members are not results of such coverage. This call for a need to design health insurance to provide financial protection to the insured in the

form that not only ensures adequate utilization of health services but also as reflected in the current commitment for a National Health Insurance.

A study by Thakur (2016) in India on utilization of the NIS observed that more private hospitals (66.5%) were used as compared to public hospitals. The use of private hospitals was quite high (70.7%) in the rural areas as compared to the urban areas (58.9%). The same pattern was seen among both enrolled and non-enrolled households. The study showed statistically significant evidence that awareness is less in the urban areas (26.1%) compared to the rural areas (40.8%). The majority major barriers in the utilization of the benefits through incomplete information on scheme's benefits (such as services covered, sum insured, and empaneled hospitals).

This study concluded that before a doctor clinically determines what is causing the patient's symptom, each patient's behavior critically determined healthcare utilization. This includes both inpatient and outpatient care. The study found that use of NHI or PHI is significantly related to the quantity of healthcare utilization. This result reveals that it is crucial to expand insurance coverage after adjusting for health status confounders to induce the use of medical care.

2.7 Theoretical Framework

This study adopts the Principal Agent Framework by Figueras, Robinson & Jakubowski (2005). This framework analyses the various components of strategic purchasing and consists of three relationships: between the purchasers and the users, between the purchasers and the providers and between the purchasers and the government. This study

focuses on the purchaser (NHIF) and the users (formal scheme members/Private University Employees) relationship to determine how users utilise services purchased by NHIF on their behalf through the providers.

The study has focused on the relationship between the purchaser (NHIF) and the users: Are the patients/members needs and preferences reflected in purchasing decisions and what is being purchased (the benefit package and administrative processes), the role played by the patients/members (communication strategy) and the relationship between the purchaser and the/patients members (perceived quality of services). This theory has looked at the purchaser user relationship thus support the independent variables.

In summary, knowledge of the benefit package, perceived image of healthcare services, communication strategies and administration processes have been found from the literature review as factors influencing utilization. The role of NHIF in Kenya is financing healthcare for its members through revenue collection, pooling/prepayment and purchasing healthcare on behalf of the members. This study thus focuses on factors that influence members (national formal private university employees) use of NHIF outpatient services.

2.8 Conceptual Framework

This shows the relationship between NHIF benefit package, perceived quality of outpatient services, NHIF communication strategy and NHIF administrative processes on utilization of NHIF outpatient services. It gives the researchers a point of view on factors influencing utilization of NHIF outpatient services by private University employees in Nairobi County.

Independent Variables

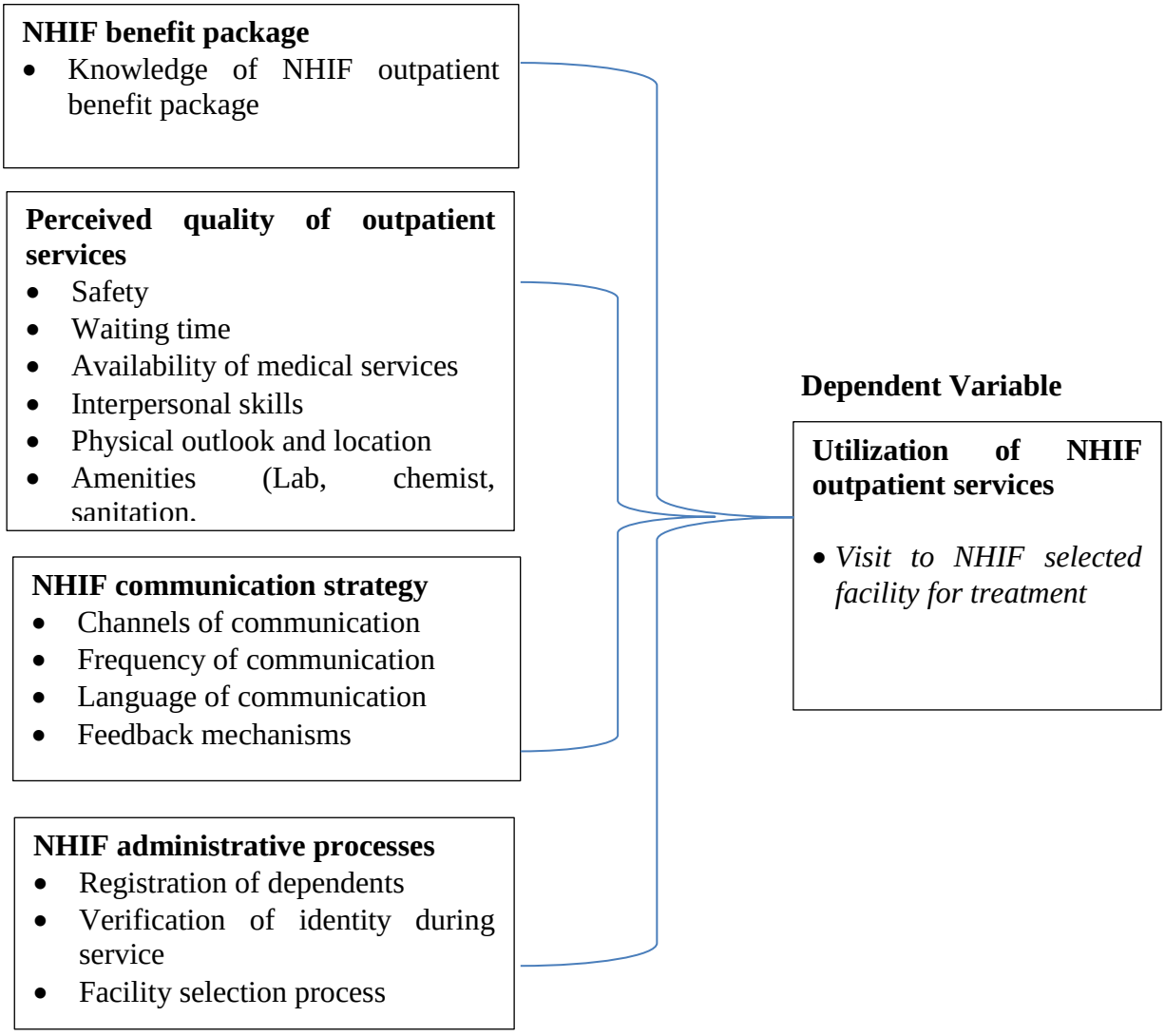

Figure 2.1: Conceptual Framework

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter describes the research design, data collection and the techniques for data analysis. This includes the research design, target population, sample size and sample selection. The chapter also highlights data collection instruments, instruments pre-testing, instrument validity as well as instruments reliability. The chapter explains the procedures of date collection and data analysis methods, the study variables and research ethical considerations.

3.2 Research Design

This study adopted cross-sectional descriptive design with mixed methods approach.

Figueras et al. (2005) asserts that descriptive research included survey and fact finding enquiries of different kinds. The design enabled the researcher to determine the current status of factors determining utilization of NHIF outpatient services among private University employees in Nairobi. To achieve this, the study employed a combination of research designs that included quantitative, descriptive, and correlational designs. Quantitative techniques were used because the expected information from the field involved factual elements which were analyzed using descriptive statistics.

The study was cross-sectional and employed likert based psychometric constructs to collect data from the field. A cross sectional study examines a relationship between variables of interest in a defined population at a single point in time over a short period of time (Ray, 2011). According to Malhotra and Birks (2007), descriptive research design involves

observing and describing the behavior of a subject without influencing it in any way. The correlational design was able to correlate each independent variable against the dependent variable while the quantitative design was used to obtain inferential information required for the purposes of the study.

3.3 Target Population

The target population is the employees of private university employees in Nairobi County. It included all staff enrolled into the NHIF national formal scheme and their contributions are remitted directly to NHIF by their employer both academic and administrative staff. The academic staff targeted included those involved in the teaching process like professors, lecturers and assistant lecturers. The administrative staff included those working in the library, finance department, information technology staff, academic support staff, the management, marketing staff and all permanent employment support staff. The study excludes employees of the university on temporary basis. There are (22) private Universities with campuses in Nairobi County. Letters were written to the Human Resource Departments of private Universities in Nairobi seeking information on number of employees in the Universities and consent to collect data in the institutions. Only 14 Universities responded giving approvals for data collection. Based on the human resource management records of the 14 universities (see appendix 3), the total target population was 1100 employees.

3.4 Study Location

The study was done among employees of private Universities in Nairobi County. Private University employees are classified under the National formal scheme by NHIF. A study

has previously been done targeting the national informal scheme members and this study wants to inform utilization among the national formal scheme members. The Private Universities remit their monthly NHIF contributions through their employers. Nairobi County was selected given the high number of private Universities in the County. It was chosen for the research due to logistical convenience. Public University employees are under the civil service NHIF category and therefore do not form part of the target population. University employees form part of the informed members of NHIF and are assumed to understand their rights in regards to NHIF service provision. The researcher banked on their likelihood to give very open feedback that is non-biased. This makes the research very successful and of significance to health systems financing.

3.5 Sampling Techniques and Sample Size

3.5.1 Sample size Determination

The sampling determination describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. The sampling frame describes the list of all population units from which the samples are selected (Cooper & Schindler, 2006). To determine the sample size, the researcher adopted Fishers et al nf formulae for populations below 10,000 as recommended by Mugenda & Mugenda (2003). Below formulae was used to determine the sample size.

$n=Z^2pq/d^2$

n= desired sample size

z= standard normal deviate=1.96 or 95% confidence level

p = proportion of the target population estimated to have a particular characteristic = 0.5

q= 1-p (proportion in the target population not having a particular characteristic

d= degree of accuracy required = 0.05 level = 1.96^2 * (0.5) (0.5) / 0.05^2 = 384

Since the population is below 10,000

University's sample size:

nf = n / {1+ (n)/N}

nf = 384 / {1+ (384 / 22)}

nf = 20 Universities

Respondents sample size

nf = 384 / {1+ (384 / 1100)}

nf = 284 respondents

3.5.2 Sampling Techniques

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda & Mugenda, 2003). This subgroup is carefully selected to be representative of the whole population with the relevant characteristics. The sampling determination describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. The sampling frame describes the list of all population units from which the samples are be selected (Cooper & Schindler, 2006). In this study, multistage sampling augmented with simple random sampling was used to determine the sample size. Private Universities in Nairobi were clustered based on the number of employees. Given the sample size was determined as 20 private Universities; they were randomly selected from the total 22. Letters were written to 20 private Universities seeking authority to collect data. Only 14 Private Universities gave approval to collect data. (Refer to appendix 3) from

where data was collected. Using the number of employees per University as a guide, 284 employees were randomly selected and issued the questionnaires. Out of the total 284 questionnaires administered, only 263 fully responded to the questions.

3.5.3 Research Instruments

The researcher used self-administered questionnaire as the main data collection instrument. Refer to appendix 2. Questionnaires allow researchers in social and educational studies to describe things as they occur and is a reliable tool to be used with a large population (Orodho, 2005). The study used likert based psychometric closed ended questions. The scale of the Likert scale ranged between 1 and 5; 1 being Strongly disagree, 2 Disagree, 3 not sure, 4 Agree and 5 Strongly agree. The questions sought to collect respondents demographic information, find out respondents knowledge on NHIF benefit package, their perception on NHIF outpatient services, approval of NHIF communication strategy and administrative processes. The mean score was then calculated for each statement and a mean score of 3.4 is the border line for agree and disagree.

3.6 Pre-testing of Tools

An instrument pre-testing is a preliminary mini-study conducted with a small sample in order to establish the effectiveness of data collection instruments (Mugenda & Mugenda, 2003). Pre-test is conducted when a questionnaire is given to just a few people with an intention of pre testing the questions. In the views of Gay in (Mugenda & Mugenda 2003), a pre-test sample should be between 1% and 10% of the actual sample size. In the light of this, the researcher used 10 % of the sample size, i.e. 10 % x 284 = 28 respondents. Pre-

testing of the questionnaires was done at Zetech University in Kiambu County where 30 full time employees were used to test the reliability and validity of the questionnaire. Responses on the questionnaires were reviewed for repetition, ambiguity, flow and relevance to the purpose of study. The questions were restructured, re-written in order to get accurate responses during the actual study.

3.6.1 Validity

Validity of a research instruments refers to the extent to which a research tool measures what it was supposed to measure Kothari (2005). To ensure the questionnaire was valid, their accuracy was tested during the pre-test among the respondents randomly selected at a University in Kiambu County to ensure adequate coverage of research objectives. The researcher then shared the details and structure of the research instruments with the supervisor for analysis, cross-check and affirmation that indeed the research instruments captured the full concept of the study. Based on the responses, the questions were restructured, re-written in order to get accurate responses during the actual study.

3.6.2 Reliability

According to Kombo and Tromp (2006), reliability is a measure of the consistency with which a measuring instrument yields consistent data with repeated trials. Reliability of instrument is done to ensure that there is consistence across all given variables (Mugenda & Mugenda, 1999). Internal consistency reliability was used to measure the instruments reliability. Cronbach Alpha was used where there is an existence of five point likert scale in the survey questionnaires. To enhance reliability, the survey instrument was administered

during the same time period to all participants. Cronbach's alpha was used in the internal consistency reliability test in order to explain and interpret the reliability among items surveyed. Cronbach's Alpha is a range from 0.0 to 1.0 and was used to check whether the construct is reliable or not. The test found that some questions needed to be restructured, re-written and re-arranged in order to get accurate responses during the actual study. The study tool was reliable as the Cronbach's Alpha α coefficient was 0.808. Many researchers suggest that 0.70 is most acceptable and suitable cut-off point.

3.7 Data Collection Techniques

The researcher identified a contact person in each of the sampled Universities through the Human resource department. The contact person was used to guide the researcher on the location of the staff and most appropriate time to visit them. A schedule of visits was developed and based on geographical location; universities were classified in clusters for convenience in visitation. The researcher used the schedule to distribute questionnaires to targeted staff. During the distribution of the instruments, the purpose of the research was explained and questions clarified. Based on how available the respondent was to fill in the questionnaire, they were given between 2 hours to 24 hours to respond to all questions after which the researcher collected the questionnaires. The respondents also filled in the provided consent form. A central location was identified in each University where respondents dropped the filled in questionnaires for researchers collection after the agreed upon time. Use of questionnaires eased the process of data collection as all the selected respondents were reached in time.

3.8 Data Analysis Procedure

A quantitative approach to data analysis was used. Quantitative data from the questionnaire was coded and entered into the Statistical Package for Social Sciences (SPSS version 24) for computation of descriptive statistics. SPSS was used to run descriptive statistics such as frequency and percentages so as to present the quantitative data in form of tables and graphs based on the major research questions.

3.9 Methods of Data Analysis

Upon completion of data collection, the data was entered in SPSS version 24. It was coded and cleaned in readiness for analysis. Quantitative data analysis was done with the use of SPSS Version 24. The content analysis (Lombard, Snyder-Duch & Bracken, 2002) is an objective technique that ensures systematic, quantitative description of and communication of information. The descriptive analysis was done to obtain summary statistics of various items of importance in this study. To describe the nature of the variables, the M= and standard deviations were also used. The information on the descriptive analysis was presented in tables. Demographics were presented in frequencies and percentages. The inferential statistics used were the F-Statistics, P-values, Pearson's Rho ®, co-efficient of determination (R^2) and the coefficient of multiple determinations (Adjusted R^2)

The research questions in this study were tested using the Pearson's Rho (r) and its corresponding p-value. Where the p-values are below 0.05, the study concluded that statistical evidence is available while insignificant relationships were experienced for the variable with p-values above 0.05. The psychometric Likert based questions were analyzed

by the help of mean score for each question asked. The mean score above 3.4 indicates agreement while those below 3.4 indicated disagreements.

Correlational analysis was also performed to show the direction and significance each variable has over the dependent variable. This was shown by the value of (r) and its corresponding p-value. The Rho ranges between 0.0 and 1.0. The more closely the value of r is to 1.0, the stronger the relationship and vice versa is true. The study used the following functional relationship to arrive at the model that is used in this study:

$Y=f(X_{1,}X_{2,}X_{3,}X_{4}) + \varepsilon$

Where $_{Y}$ stands for Utilization of NHIF outpatient services

X_1= NHIF benefit package

X_2= Perceived quality of NHIF outpatient services

X_3= NHIF communication strategy

X_4= NHIF administrative processes

ε= Stochastic disturbance error term

From this functional relationship, the following univariate and multiple linear regression models were derived;

$Y= \beta_0 + \beta_i X_i + \varepsilon, (i = 1,2,3,4)$ …… *(1a)*

$Y=\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$……*(1b)*

Where*;* β_o is the constant

β_i (i=1,2,3,4) is the slope coefficients of $X_{1,}X_{2,}X_3$and X_4 which gives the regression weight for each variable.

The F statistics in the ANOVA table of the regression output and its corresponding p-value shows the validity of the model. If the p-value is below 0.05, then the regression model is valid for further analysis otherwise is also true for p-values above 0.05. The R^2 is the coefficient of determination and shows the total variations explained by the variables under consideration in the study. The R^2 also shows whether the data collected fits the model. The value of the adjusted R^2 is the coefficient of multiple determinations and shoes the variations explained by the model without the value of constant. It is usually used when the p-value of the constant is above 0.05.

3.10 Ethical Considerations in Research

The researcher sought approval from KeMU- Scientific Ethic Review Committee (SERC), and National Commission for Science, Technology and Innovation (NACOSTI), target University's Authorities and informed consent form for the respondents. See appendix 4 and 5. These documents were to ensure data was kept in good custody and protection of the respondents. It also explained the objectives of the research.

CHAPTER FOUR: FINDINGS AND DISCUSSIONS

4.1 Introductions

This chapter presents the analyzed results and discussions. The demographics of the respondents are presented in the first section, while the second section covers the descriptive statistics of both the independent and dependent variables.

4.2 Response Rate and Reliability Analysis Results

The study response rate was 263/284 (92.6%). The study tool was reliable as the Cronbach's Alpha α coefficient was 0.818

4.3 Demographic Characteristics of the Respondents

The study sought to find out the demographic characteristics of the respondents in terms of age, gender, marital status, education level, occupation, registration of dependents under NHIF, availability of private health insurance and how respondents often pay for their healthcare services. Results of respondent's demographics are presented in Table 4.1.

4.3.1 Age, Gender, Marital Status, Education Level, Occupation

Female respondents were 132 (50.2%) of the entire sample while male respondents accounted for 131 (49.8%). The study sought to find out the age of the respondents. The question had a 94.6% response rate. The analysis indicated that majority of the respondents were between the ages 31-40 who accounted for 43.8%. Those in the age group 21-30, 41-50 , 51-60 and 61-70 were represented in the study accounting for 85(22.7%), 65(26.9%),

14(5.8%) and 2(0.8%) respectively. Majority of the respondents are below 50 years (young and middle-aged staff) showing that there was no bias in response and hence, the results could be generalized.

Table 4.1 Demographic Characteristics of the respondents (N=263)

Characteristic	Respondents N (%)
Age of respondents in years	
21-30	55(22.7)
31-40	106(43.8)
41-50	65(26.9)
51-60	14(5.8)
61-70	2 (0.8)
No response	21 (7.9)
Total	**263(100)**
Gender	
Female	132 (50.2)
Male	131 (49.8)
Total	**263 (100)**
Marital Status	
Married	176 (66.9)
Never married	69 (26.2)
Divorced	13 (4.9)
Widowed	5 (1.9)
Total	**263 (100)**
Highest Education Level	
Certificate	5 (1.9)
Diploma	40 (15.2)
Bachelor Degree	89 (33.8)
Masters' Degree	105 (39.9)
PhD	24 (9.1)
Total	**263 (100)**
Occupation	
Academic staff	86 (32.7)
Administration staff	177 (67.3)
Total	**263 (100)**
Have you registered dependents under NHIF	
Yes	185 (70.3)
No	27 (10.3)
Not applicable	51 (19.4)
Total	**263 (100)**
Does your spouse have a separate NHIF Card	
Yes	151 (57.4)
No	54 (20.5
Not applicable	58 (22.1)
Total	**263 (100)**
I have a private Health insurance	
Yes	156 (66.1)
No	107 (33.9)
Total	**263 (100)**
How do you often pay for healthcare services	
Out of Pocket	33 (12.5)
NHIF Card	73 (27.8)
Private Health Insurance	74 (28.1)
Out of Pocket &NHIF card	27 (10.3)
Out of pocket and private health insurance	8 (3.0)
NHIF & Private health insurance	48 (18.3)
Total	**263 (100) (100)**

The analysis further reveals that majority of the respondents are married 176 (66.9%) while 69 26.2% were never married, 13(4.9%) were divorced and 5(1.5%) were widowed. The findings as indicated in table 4.1 shows that majority of the respondents had at least a Masters degree 105(39.9%). 5 (1.9%) had a minimum of Certificate, Diploma 40 (15.2%) Bachelors degree 89 (33.8%) and PhD at 24 (9.1%). Out of all the respondents, 86(32.7%) were academic staff while 177(67.3%) were administrative staff.

Analysis on respondents who have registered their dependents under NHIF indicated that 185 (70.3%) had registered their dependents, 27 (10.3%) had not registered them while 51 (19.4% had no dependents to register). Those whose spouses had separate NHIF cards were 152 (57.4%). The analysis indicated that majority 156 (66.1%) of the respondents had a private health insurance and that 74 (28.1%) often used private health insurance to pay for their outpatient healthcare services. An equally big proportion 73 (27.8%) use NHIF card to pay for their outpatient healthcare services while 33(12.5%) pay out of pocket. At the same time, majority of the respondents often pay cash for healthcare services and often buy medicine from the chemist without prescription.

These findings raise issues of a fragmented pool demanding answers to why one insurance provider is not sufficient for users. This finding confirms information on NHIF website that NHIF benefit package recognizes that NHIF membership is diverse and that some members with high incomes may require more expensive services than those covered by this benefits package. The findings shows members are able to supplement the NHIF benefit package by either private insurance or direct co-payment. The demographics thus agrees with the problem statement that majority have private health insurance (PHI) 156 (66.1%), some use

PHI for their primary healthcare 74 (28.1%), some have not registered their dependents with NHIF 27 (10.3%), while some still use OOP for their outpatient care 33(12.5%).

4.4 Utilization of NHIF Outpatient Healthcare Services

The study sought to find out the extent of utilization of NHIF outpatient services by the respondent. Table 4.2 indicates that respondents were in agreement that they had used NHIF card (M= 3.7, SD = 1.32) and that their dependents had used NHIF card to receive outpatient services (M = 3.42, SD = 1.38). In regards to future use of NHIF card, they agreed that they (M= 4.11, SD = 0.98) and their dependents (M= 3.98, SD = 1.04) will use it in future when need arises.

Table 4.2: Utilization of NHIF Outpatient Services

Statement	SD N (%)	D N (%)	N S N (%)	A N (%)	S A N (%)	Mean	SD
I have ever used my NHIF card to receive healthcare services	25 (9.5)	41 (15.6)	8(3.0)	103(39.2)	86 (32.7)	3.7	1.32
I will use the NHIF card to receive healthcare services when need arises	8 (3.0)	13 (4.9)	22(8.4)	118(44.9)	102(38.8)	4.11	0.96
My dependents have ever used NHIF card to receive healthcare	39 (14.8)	38 (14.4)	23(8.7)	100(38.0)	63 (24.0)	3.42	1.38
My dependents will use the NHIF card to receive healthcare when need arises	10 (3.8)	20 (7.6)	24(9.1)	119(45.2)	90 (34.2)	3.98	1.04

SA= strongly agreed; A=Agreed, NS=Not sure; D=Disagree; SD=Strongly Disagree

This result shows active utilization of NHIF outpatient services by the NHIF insured. It agrees with a study by Bonfrer et al. (2016) comparing children from mothers with and without enrollment in the National Health Insurance Scheme (NHIS); maternal and infant health care utilization in Ghana. The study showed significant increase in percentage of mothers who had a skilled health care worker present during birth and children whose mother obtained at least four antenatal care (ANC) visits due to NHIS enrollment. It concluded there was a lower rate of pregnancies reported and modest improvements in maternal health care utilization as a result of increased enrollment in the NHIS.

This study is in line with research in South Africa by Ataguba and Goudge (2012) that concluded that private health services use is increased by insurance coverage increases. Though this is as would be expected there is no significant effect on the use of public services. Lower OOP payments for scheme members compared to non-members are not results of such coverage. This call for a need to design health insurance to provide financial protection to the insured in the form that not only ensures adequate utilization of health services but also as reflected in the current commitment for a National Health Insurance.

This study is also in line with studies in Korea that each patient's behavior (understanding the benefit package, registration, selection of facility,) before a doctor clinically determines what is causing the patient's symptoms critically determines healthcare utilization including inpatient and outpatient care. The significant finding of the study was that whether a patient uses NHI or PHI is definitely related to differences in the quantity of healthcare utilization. This study also concludes that to induce use of medical care,

insurance coverage expansion is crucial for care after adjusting for health status confounders.

This study also agrees with Sundays et al. (2015) that found benefit package, administrative processes, communication among others as factors influencing utilization of NHIF medical cover. It also agrees with Ataguba and Goudge (2012) that lower OOP payments for scheme members compared to non-members is not affected by insurance coverage. This calls for a need to design health insurance in the form that provides financial protection to the insured and also ensures adequate utilization of health services.

4.5 Knowledge of NHIF Benefit Package

Table 4.3 illustrates the results of responses given by the respondents about their knowledge of entitlement to various outpatient benefits.

Table 4.3: Respondents Knowledge of NHIF Benefit Package

Statement: I am entitled to:	S D N (%)	D N (%)	N S N (%)	A N (%)	S A N (%)	Mean	SD
Consultation	28 (10.6)	28 (10.6)	46 (17.50	68(25.9)	93 (35.4)	3.65	1.34
Laboratory investigations	26 (9.9)	27 (10.3)	55 (20.9)	84(31.9)	71 (27.0)	3.56	1.26
Drugs administration and dispensing	14 (5.3)	27 (10.3)	69 (26.2)	79(30.0)	74 (28.1)	3.65	1.15
Dental Healthcare Services	28 (10.6)	36 (13.7)	91 (34.6)	60(22.8)	48 (18.3)	3.24	1.21
Radiological Examinations	17 (6.5)	30 (11.4)	111(42.2)	65(24.7)	40 (15.2)	3.31	1.06
Nursing and Midwifery Services	13 (4.9)	23 (8.7)	62 (23.6)	79(30.0)	86 (32.7)	3.77	1.14
Surgical Services	18 (6.8)	28 (10.6)	98 (37.3)	75(28.5)	44 (16.7)	3.38	1.09
Radiotherapy	23 (8.7)	30 (11.4)	123(46.8)	58(22.1)	29 (11.0)	3.15	1.05

Physiotherapy Services	24 (9.1)	27 (10.3)	132(50.2)	57(21.7)	23 (8.7)	3.11	1.01

SA= strongly agreed; A=Agreed, NS=Not sure; D=Disagree; SD=Strongly Disagree

The aim was to determine the level of knowledge by the respondents on the NHIF outpatient benefit package. The respondents agreed they were entitled to consultation (M= 3.65, SD = 1.34), laboratory investigations (M= 3.56 SD = 1.26), drugs administration (M= 3.65, SD = 1.15) and nursing and midwifery services (M= 3.77, SD = 1.14). However, they disagreed that they were entitled to dental healthcare services (M= 3.24, SD = 1.21), radiological examinations (M=3.31, SD = 1.06), surgical services (M=3.38, SD = 1.09), radiotherapy (M= 3.15, SD = 1.05), and physiotherapy services (M= 3.11, SD = 1.01).

The challenge of member's lack of understanding of the benefit package is revealed in the study. The study finds that an understanding of the benefit package results to members' use of outpatient services. It is evident from the study that members utilize services on need basis. The results of this study agrees with information on NHIF website that NHIF partners, health care providers and the members are skeptical towards NHIF cover due to lack of understanding of NHIF benefit package. This study finds that members will seek information on the benefit package mainly when they need it.

This study confirms literature on the NHIF Strategic plan 2014-18 that NHIF has continued to review the benefit package. Although NHIF cites the main challenge as being to define the benefit package in a manner that staff can understand what they are selling; members can understand what they are entitled to & the healthcare providers can understand what services they are to offer to the members, the study finds that members will seek this information when need be and therefore acquire knowledge of the package in the process.

This study reveals that although there is utilization of NHIF outpatient services, most members get to know of the services only when they demand it. This is evidenced by this study in that most respondents are aware of entitlement to frequently demanded services like consultation, laboratory investigations, drugs administration, and nursing and midwifery services while they are not aware of entitlement to less demanded health services like dental healthcare services, radiological examinations, surgical services, radiotherapy, and physiotherapy services.

This findings disagrees with a study by Ngatia (2008) that established NHIF customers were satisfied with the products offered by NHIF but would like NHIF to have more products. The findings and current situation is that the benefit package is broad but the customers are not aware of their existence. The results are however similar to findings of (Mulupi et al., 2013) on community perceptions of health insurance that found inadequate benefit packages and high co-payments hindered people form utilizing health services and concluded people are likely to accept something if they understood key concepts and how they work.

The researcher finds it important that community is sensitized and engaged to promote awareness and understanding of NHIF key concepts of and their application. Mulupi's study ranked outpatient services as community's number three in priority and inpatient services and specialized treatment ranked as more deserving packages than outpatient care. This may explain the reason for lack of knowledge or understanding of the outpatient benefit package as it is not their number one priority.

4.6 Perceived Quality of NHIF Outpatient Service

Table 4.4 shows the descriptive statistics on respondent's perceived quality of NHIF outpatient services.

Table 4.4: Perceived Quality of NHIF Outpatient Services

Statement	S D N (%)	D N (%)	N S N (%)	A N (%)	S A N (%)	Mean	SD
I consider the healthcare services in these facilities to be safe	17 (6.5)	30 (11.4)	76 (28.9)	122 (46.4)	18 (6.8)	3.36	0.993
Services in the facilities are satisfactory	14 (5.3)	63 (24.0)	56 (21.3)	117 (44.5)	13 (4.9)	3.2	1.03
Medical records confidentiality is maintained for future reference	3 (1.1)	21 (8.0)	107 (40.7)	105 (39.9)	27 (10.3)	3.5	0.83
The number of health workers is enough	20 (7.6)	69 (26.2)	95 (36.1)	61 (23.2)	18 (6.8)	2.95	1.04
Waiting time is sufficient	30 (11.4)	78 (29.7)	62 (23.6)	87(33.1)	6 (2.3)	2.85	1.08
Clinicians are available in the consultation rooms all the time	20 (7.6)	78 (29.7)	65 (24.7)	89 (33.8)	11 (4.2)	2.97	1.05
Customers are served on a first in first out basis	16 (6.1)	38 (14.4)	66 (25.1)	107 (40.7)	36 (13.7)	3.41	1.08
Health workers show compassion to patients	14 (5.3)	51 (19.4)	67 (25.5)	111 (42.2)	20 (7.6)	3.27	1.03
There is no discrimination between NHIF and other insurance card holders	30 (11.4)	50 (19.0)	78 (29.7)	78 (29.7)	27 (10.3)	3.08	1.16
Cleanliness is maintained in the facilities	9 (3.4)	41 (15.6)	54 (20.5)	130 (49.4)	29 (11.0)	3.49	0.99
The physical outlook of the facilities is appealing	12 (94.6)	48 (18.3)	61 (23.2)	115 (43.7)	27 (10.3)	3.37	1.04
The health facilities amenities are clean	12 (4.6)	58 (22.1)	52 (19.8)	116 (44.1)	25 (9.5)	3.32	1.06
Staff handling patients are clean	5 (1.9)	24 (9.1)	44 (16.7)	152 (57.8)	38 (14.4)	3.74	0.88
There is a comfortable waiting bay in the facilities	24 (9.1)	63 (24.0)	50 (19.0)	94 (35.7)	32 (12.2)	3.18	1.19
There is a well-stocked pharmacy	42 (16.0)	55 (20.9)	76 (28.9)	75 (28.5)	15 (5.7)	2.87	1.16

There is an operational laboratory	15 (5.7)	53 (20.2)	73 (27.8)	96 (36.5)	26 (9.9)	3.25	1.06
Drugs are available for me all the time	33 (12.5)	88 (33.5)	62 (23.6)	63 (24.0)	17 (6.5)	2.78	1.14

SA= strongly agreed; A=Agreed, NS=Not sure; D=Disagree; SD=Strongly Disagree

Respondents agreed medical records confidentiality is maintained for future reference (M= 3.5, SD = 0.83) but did not consider services in the facilities to be satisfactory (M= 3.20, SD = 1.03). They disagreed that waiting time is sufficient (M= 2.85, SD = 1.08), clinicians are available in the consultation rooms all the time (M= 2.97, SD = 1.05) and the number of health workers is enough (M= 2.95, SD = 1.04). This result is in line with Mulupi et al (2013) study that concluded there is wide dissatisfaction with the public health system due to poor service provision. Similarly, it found dissatisfaction with quality of care, related to availability of drugs, patient- provider interactions, discrimination against CBHIs members and long waiting times. In Ghana, similar findings were reported where the insured population received low quality drugs or being asked to buy them at private pharmacies, being discriminated by providers, waiting longer at health facilities than the non-insured, and being subjected to verbal abuse.

Respondents agreed that customers are served on a first in first out basis (M= 3.41, SD = 1.08) but stated that health workers do not show compassion to patients (M= 3.27, SD = 1.03) and there is discrimination in the facility between NHIF card holders and others with other insurance covers. This agrees with a study by Fotso and Mukiira (2012) that showed public providers of maternal health services in urban Kenya are not only frequently unfriendly to women, but also regularly fail to answer their questions, to ask them for important routine information, and tend to display behaviors of harassment and mistreatment of women.

On physical outlook of facilities, respondents agreed that cleanliness is maintained in the facilities (M= 3.49, SD = 0.99) and that staff handling patients are clean (M= 3.74, SD = 0.88). They disagreed there is a comfortable waiting bay in the facilities (M= 3.18, SD = 1.19), a well-stocked pharmacy (M= 2.87, SD = 1.16), an operational laboratory (M= 3.25, SD = 1.06) and that drugs are available all the time (M= 2.78, SD = 1.14). The findings of this study show patients seeking services from private facilities which may be relatively expensive. This finding agrees with a study by Okech and Lelegwe (2015) that found public hospitals having dilapidated health infrastructure, limited appropriate equipment and available infrastructure negatively impacting members thus seek services from private facilities which may be relatively expensive thereby negating the expected gains of financial risk protection currently being pursued under the enhanced NHIF.

This study is in agreement with results of Mulupi et al. (2013) that found perceived poor quality of services at NHIF accredited facilities hindered people from joining health insurance schemes and/or contributed to drop out rates. Similar factors exemplifying poor service provision were discrimination of patients according to scheme membership or perceived socioeconomic status, corruption (and conflict of interest), lack of x-ray machines and laboratory equipment and long waiting times. Conclusively, the researcher finds that despite respondents having challenges with waiting time in these facilities, safety of services and availability of healthcare workers, lack of a well-stocked pharmacy and an operational laboratory, they still utilize the services in these facilities. This may be as a result of lack of alternative services, convenience or cost of services is low.

4.7 NHIF Communication Strategy

Respondents were asked questions related to NHIF communication strategy as shown in Table 4.5.

Table 4.5: NHIF Communication Strategy

Statement	S D N (%)	D N (%)	N S N (%)	A N (%)	S A N (%)	Mean	SD
NHIF uses the most ideal means to communicate to me (SMS, newspaper, TV, Radio)	67 (25.5)	54 (20.5)	53 (20.2)	70 (26.6)	19 (7.2)	2.7	1.3
NHIF communicates to me as often as I would like	67 (25.5)	97 (36.9)	46 (17.5)	43 (16.3)	10 (3.8)	2.36	1.14
NHIF communicates the rules of selecting a facility often	55 (20.9)	81 (30.8)	56 (21.3)	61 (23.2)	10 (3.8)	2.58	1.17
I have all the information regarding NHIF outpatient services	45 (17.1)	89 (33.8)	55 (20.9)	57 (21.7)	17 (6.5)	2.67	1.18
I know the rules of selecting a NHIF facility for outpatient services	32 (12.2)	72 (27.4)	69 (26.6)	70 (26.6)	20 (7.6)	2.9	1.15
I can select more than one facility for outpatient services	28 (10.6)	59 (22.4)	90 (34.2)	62 (23.6)	24 (9.1)	2.98	1.12
NHIF offices have available staff to respond to my issues	19 (7.2)	52 (19.8)	82 (31.2)	92 (35.0)	18 (6.8)	3.14	1.05
NHIF uses the most appropriate language to communicate with me	14 (5.3)	32 (12.2)	59 (22.4)	135 (51.3)	23 (8.7)	3.46	0.99
I understand whenever NHIF sends communication to me	18 (6.8)	42 (16.0)	49 (18.6)	113 (43.0)	41 (15.6)	3.44	1.14
I am able to ask NHIF office questions whenever I want	33 (12.5)	62 (23.6)	81 (30.8)	56 (21.3)	26 (9.9)	3.08	1.21
NHIF has effective mechanisms to respond to feedback and complains	38 (14.4)	62 (23.6)	81 (30.8)	56 (21.3)	26 (9.9)	2.89	1.19
NHIF offices are conveniently located for my access	32 (12.2)	60 (12.2)	44 (16.7)	84 (31.9)	43 (16.3)	3.17	1.29
NHIF engages citizens for needs improvement	40 (15.2)	58 (22.1)	81 (30.8)	58 (22.1)	26 (9.9)	2.89	1.20

SA= strongly agreed; A=Agreed, NS=Not sure; D=Disagree; SD=Strongly Disagree

Responding to NHIF channels of communication, they disagreed with the statement that NHIF uses the most ideal means to communicate (M= 2.7, SD = 1.3), NHIF communicates to them as often as they would like (M= 2.36, SD = 1.14), NHIF offices have available staff to respond to issues (M= 3.14, SD = 1.05) and they are able to ask NHIF office questions whenever they want (M= 3.08, SD = 1.21). The respondents were asked questions on NHIF feedback mechanism. They responded that NHIF does not have effective mechanisms to respond to feedback and complains, NHIF offices are not conveniently located for easy access and that NHIF does not engage citizens for needs improvement. The NHIF's lack of citizen engagement may be a response to its long standing uneasy relationship with the public which distrusts the organization.

This study is similar to studies by Hasnain-Wynia et al. (2006) that indicated a negative impact on access to treatment due to communication challenges. Similarly, this study found evidence that communication challenges may result in increased use of expensive diagnostic tests, increased use of emergency services, decreased use of primary care services, and poor or no patient follow-up when such follow-up is indicated. Respondents disagrees with the channels of communications by NHIF which are listed by NHIF as display of benefits and list of accredited providers on the website, newspapers, television and radio adverts, forums with stakeholders including providers and employers compliance officers engaging with employers to ensure that they are aware of what NHIF offers.

The respondents were in agreement that NHIF uses the most appropriate language to communicate with them (M= 3.46, SD = 0.99) and they understand whenever NHIF sends communication to them (M= 3.44, SD = 1.14) thus approving the language of communication. This is confirmed by their knowledge that one can only select one facility to receive outpatient care. Further, respondents disagreed that NHIF communicates the rules of selecting a facility, have all the information regarding NHIF outpatient services and know the rules of selecting a NHIF facility for outpatient services. Kenya has a policy guideline on these processes but has not effectively been communicated to the members as per the findings of this study. This thus disagrees with study by Munge et al. (2015) that noted there is no policy guideline in Kenya to inform patients on their entitlement and obligations to NHIF.

The results of this study agrees with information by a Position Paper_FLHSN_EN. (n.d.) that communication challenges contribute to reduced quality, adverse health outcomes, and health disparities. Most respondents in this study use private health insurance to receive outpatient care 74 (28.1%) while 33 (12.5%) use OOP. Further, 133 (50.6%) of the respondents pay cash for health care services while 130 (49.8%) often buy drugs without prescription. This result indicates that despite all respondents having NHIF cards, they still opt for more expensive healthcare services. This thus agrees with a study by Hasnain-Wynia et al. (2006) that concluded communication challenges may result in increased use of emergency services, increased use of expensive diagnostic tests, poor or no patient follow-up when such follow-up is needed and decreased use of primary care services.

In conclusion, the researcher finds that although the respondents agree with the language of communication, they disagreed with the channels, frequency and feedback mechanism. However, the level of NHIF outpatient services utilization is high. Respondents also say they will utilize the services in future showing hopes that there will be improvement in factors they considered not working.

4.8 NHIF Administrative Processes

The respondents were asked questions related to NHIF administrative processes.

Table 4.6: NHIF Administrative Processes

Statement	S D N (%)	D N (%)	N S N (%)	A N (%)	S A N (%)	Mean	SD
I have selected an NHIF facility to receive outpatient care	24 (9.1)	34 (12.9)	37 (14.1)	109(41.4)	59 (22.4)	3.55	1.23
I have registered my dependents as NHIF beneficiaries	33 (12.5)	45 (17.1)	20 (7.6)	94 (35.7)	71 (27.0)	3.48	1.37
The means of registering for NHIF are convenient	16 (6.1)	45 (17.1)	33 (12.5)	135(51.3)	34 (12.9)	3.48	1.1
The process of registering dependents is convenient	11 (4.2)	51 (19.4)	41 (15.6)	127 (48.3)	33 (12.5)	3.46	1.07
Staff in NHIF accredited facilities are aware of my entitlements	12 (4.6)	39 (14.8)	99 (37.6)	90 (34.2)	23 (8.7)	3.28	0.97
Staff in the facilities are easily able to identify dependents	15 (5.7)	25 (9.5)	103(39.2)	91 (34.6)	29 (11.0)	3.36	0.99

The process of selecting facilities is convenient	26	(9.9)	46	(17.5)	62	(23.6)	104	(39.5)	25	(9.5)	3.21	1.43

SA= strongly agreed; A=Agreed, NS=Not sure; D=Disagree; SD=Strongly Disagree

Table 4.6 indicates that majority of the respondents had selected an NHIF facility to receive outpatient care (M= 3.55, SD = 1.23) and had registered their dependents as NHIF beneficiaries (M= 3.48, SD = 1.37). Respondents also agreed that the means of registering for NHIF are convenient care (M= 3.48, SD = 1.1) and the process of registering dependents is convenient care (M= 3.46, SD = 1.07). This approves the registration process which for this category of respondents is done by the employer.

The results of this study find the process of registering members and their dependents convenient. This process of registration is usually done by the employer on behalf of the respondents and thus the likely reason for this response. The study thus confirms that process of registration affects utilization and confirms studies by Ngatia (2008) that indicated the biggest challenge faced by NHIF customers as; long queues during payment, crowded offices and few in town" slow operations, few hospitals covered.

Respondents had issues with verification of identity during service. Despite NHIF operations being computerized and decentralized to enhance efficiency in settling claims and for effective management of membership database (NHIF, 2018), respondents stated that staff in NHIF accredited facilities is not aware of patient's entitlements to care (M= 3.28, SD = 0.97), they are not able to easily identify dependents for health care (M= 3.36, SD = 0.99) and that outpatient facility selection process is not convenient (M= 3.21, SD = 1.43).

This result is in agreement with a 2015 working paper by research consortium RESYST that found NHIF often did not rigorously assess the facilities it contracted based on quality, cost, geographical access and capacity. RESYST noted that, despite NHIF having regulations to delist poor performing hospitals, because some hospital were the only providers in under-served areas, penalties were often difficult to enforce. This may therefore be the factor prompting the respondents to select facilities listed by NHIF despite their poor performance.

In conclusion, the researcher finds that easier NHIF administrative processes increases utilization of services. NHIF operations have been computerized and decentralized thus enhancing efficiency and effective management of membership database. This needs to be improved at the facility level where respondents disagreed on effectiveness of member and beneficiary identification. The study is in line with a study by Ivey (2006) that concluded standardized legislative action, the creation of a national oversight commission to monitor and regulate healthcare administration, the implementation of unvarying electronic billing and recording systems, and uniform and non-duplicated credentialing and certification applications would all lend a significant hand in reforming healthcare system.

4.9: Summary of Descriptive Statistics Mean

Table 4.7 shows the summary of descriptive statistics for all the variables under study.

Table 4.7: Summary of Descriptive Statistics Mean

Variable	Mean	SD

Y: Utilization of NHIF outpatient Services	3.80	0.84
X_1: Knowledge of NHIF benefit package	3.42	0.82
X_2: Perceived quality of NHIF outpatient services	3.21	0.66
X_3: NHIF Communication strategy	2.94	0.73
X_4: NHIF administrative processes	3.40	0.69

Table 4.7 indicates that respondents agree they have and will utilize NHIF outpatient services (M=3.80, SD= 0.84). They have knowledge of NHIF benefit package (M=3.42, SD= 0.82) but disagree on quality of NHIF outpatient services (M=3.21, SD= 0.66). The respondents disagree with NHIF Communication strategy (M=2.94, SD= 0.73) but agree with NHIF administrative processes (M=3.4, SD= 0.89).

4.9: Bivariate Linear Correlation Analysis: All Dependent Variables

The analysis set to determine whether each of the independent variables in this study that is NHIF benefit package $(X_{1)}$, perceived image of NHIF outpatient services $(X_{2)}$, NHIF communication strategy $(X_{3)}$ and NHIF administrative processes $(X_{4)}$ determine utilization of NHIF outpatient services (Y).

Table 4.7 Bivariate Linear Correlation: All variables

		Y	X_1	X_2	X_3	X_4
Y (Utilization of NHIF outpatient Healthcare services)	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	263				
X_1 (NHIF outpatient benefit package)	Pearson Correlation	.153*	1			
	Sig. (2-tailed)	.013				
	N	263	263			
X_2 (Perceived quality of	Pearson Correlation	.280**	.327**	1		

NHIF outpatient services)	Sig. (2-tailed)	.000	.000			
	N	263	263	263		
X_3 (NHIF Communication strategy)	Pearson Correlation	.284**	.297**	.543**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	263	263	263	263	
X_4 (NHIF Administrative processes)	Pearson Correlation	.380**	.101	.424**	.442**	1
	Sig. (2-tailed)	.000	.103	.000	.000	
	N	263	263	263	263	263

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The result of this study is given by Spearman's Rho (r) and its corresponding *p*-value. If the *p*-value is less than 0.05, then the relationship is statistically significant. The study results in Table 4.7 shows the bivariate linear correlations among the key variables determining utilization of outpatient healthcare services by private university employees in Nairobi.

The study revealed that NHIF outpatient benefit package (X_1) have a positive and significant relationship with utilization of NHIF outpatient healthcare services (r=.153*, P<0.05). Knowledge on NHIF benefit package has been identified by the literature as one of the key variables determining utilization of outpatient services by private University employees. This findings therefore are in line with findings of Mulupi et al. (2013) that people are hindered from utilizing health services due to inadequate benefit packages and high co-payments. The study concluded that when people understand key concepts of something, they are likely to accept.

The study also found a strong positive and significant relationship between perceived quality of NHIF outpatient services (X_2) and utilization of NHIF outpatient healthcare services (Y) (r=.280**, P<0.05). Factors related to services being unsatisfactory, number of

health workers, waiting time, availability of drugs and clinicians are major factors affecting utilization. This agrees with studies by Mulupi et al. (2013) that found people are hindered from joining health insurance schemes and/or dropout rates increases as a result of perceived poor quality of services at NHIF accredited facilities.

The bivariate linear correlation analysis also revealed that there is a positive and significant relationship of NHIF Communication strategy (X_3) with utilization of NHIF outpatient services (r=.284**, P<0.05). The means to communication, frequency of communication, NHIF mechanisms to respond to feedback and complains, location of NHIF offices for easy access and lack of citizens engagement for needs improvement by NHIF were the main factors affecting utilization of NHIF outpatient services. This is in line with a study by Hasnain-Wynia et al. (2006) that concluded communication challenges impact negatively on participation in preventive measures, access to treatment, ability to obtain consent, ability for health professionals to meet their ethical obligations and quality of care.

The study also found a strong positive relationship of (X_4) NHIF administrative processes with utilization of NHIF outpatient services by the university employees r= .380**, P<0.05). This indicates the administrative processes as the most important factor among the four in determining utilization of NHIF outpatient healthcare services. This agrees with research by Ivey (2006) that concluded that easing administrative processes lend a significant hand in reforming a health system; in this case registration of dependents, verification of dependents and facility selection.

4.10 Inferential Statistical Analysis

The main model under investigation in this study intended to establish the combined influences of the four key variables NHIF outpatient benefit package (X_1), perceived image of NHIF outpatient services (X_2), NHIF communication strategy (X_3) and NHIF administrative processes (X_4) on utilization of outpatient healthcare services by private university employees in Nairobi. This model is expressed as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = Utilization of NHIF outpatient services, β_0 = Intercept (constant), $\beta_1, \beta_2, \beta_3, \beta_4$ = slope coefficients representing the determinants of the associated independent variable with the dependent variables, X_1 = NHIF outpatient benefit package, X_2 = perceived image of NHIF outpatient services, X_3 = NHIF communication strategy, X_4 NHIF administrative processes and ε = error term, was the basis under which the four specific objectives outlined in chapter one were set.

Table 4.8: Utilization of NHIF Outpatient Services: ANOVA[a]

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	32.155	4	8.039	13.401	.000[b]
	Residual	154.76	258	0.6		
	Total	186.915	262			

a. Dependent Variable: Y

b. Predictors: (Constant), X_4, X_1, X_3, X_2)

A multiple regression analysis performed on the four key factors X_1 = NHIF outpatient benefit package, X_2 = perceived image of NHIF outpatient services, X_3 = NHIF communication strategy, X_4 NHIF administrative processes to test their combined significance on utilization of NHIF outpatient healthcare services by formal private

university employees in Nairobi showed that the prediction model was significant. The regression output was valid as indicated in Table 4.8 ($F = 13.401$, $P<0.05$).

Table 4.9: Utilization of NHIF outpatient services: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.415[a]	.172	.159	.77450

a. Predictors: (Constant), X_1, X_2, X_3, X_4

The results of regression analysis in Table 4.10 above indicates significant influences of NHIF outpatient benefit package (X_1), perceived image of NHIF outpatient services (X_2), NHIF communication strategy (X_3) and NHIF administrative processes (X_4) on utilization of outpatient healthcare services by private university employees in Nairobi. The coefficient of determination (R-squared) of .172 shows that 17.2% of utilization of NHIF outpatient healthcare services can be explained by the independent variables. The adjusted R-squared of .159 indicates that these factors, in exclusion of the constant variable explained the change in utilization of NHIF outpatient healthcare services by private university employees by 15.9%. Other factors not included in the multiple regression models under investigation explain the remaining 84.1%. The standard error of estimate (.77450) shows the average deviation of the independent variables from the line of best fit.

Table 4.10: Utilization of NHIF Outpatient Services Regression Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1(Constant)	1.692	0.312		5.428	0.000

X_1: Knowledge on NHIF benefit package	0.071	0.062	0.07	1.142	0.255
X_2: Perceived quality of NHIF outpatient services	0.107	0.091	0.084	1.176	0.241
X_3: NHIF communication strategy	0.099	0.082	0.085	1.196	0.233
X_4: NHIF administrative processes	0.364	0.079	0.299	4.579	0.000

a. Dependent Variable: Y

The multiple regression results in Table 4.10 shows the influence of each of the independent variable on utilization of NHIF outpatient healthcare services. Knowledge of NHIF outpatient benefit package (X_1; t = 1.142, p = 0.255 > 0.05), perceived image of NHIF outpatient services (X_2; t = 1.196, p = 0.241 > 0.05) and NHIF communication strategy (X_3; t = 1.196, p = 0.241 > 0.05) have no influence on utilization. NHIF administrative processes (X_4; t = 4.579, P = 0.000 <0.05) positively contribute to and have a significant influence on utilization of NHIF outpatient services by private university employees in Nairobi. The constant is also positive and significant (t = 5.428, P = 0.000 < 0.05). The value of the constant (t = 5.428, P = 0.000 < 0.05) indicates that utilization of NHIF outpatient services will always exist even without the four factors under investigation in this study.

In summary, the researcher found statistical and significant evidence that NHIF administrative processes is significant and positively influences utilization of NHIF outpatient services by private university employees in Nairobi. However, in a combined relationship, knowledge of NHIF outpatient benefit package, perceived image of NHIF outpatient services, NHIF communication strategy and NHIF outpatient benefit package

are not statistically significant influencers of utilization of NHIF outpatient services by private university employees in Nairobi.

CHAPTER FIVE:

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introductions

This chapter presents summary of findings guided by the specific objectives in chapter one. Conclusions, recommendations and suggestions for future action and research direction have also been stated.

5.2 Summary

The main objective of the study was to establish factors determining utilization of NHIF outpatient services by National formal scheme members with a focus on private university employees in Nairobi County. In particular, the study was designed to determine whether NHIF benefit package, perceived image of NHIF outpatient services, NHIF communication strategy and NHIF administrative processes determine utilization of NHIF outpatient services.

The study findings on knowledge of NHIF benefit package showed respondents agreed they were entitled to consultation, laboratory investigations, drugs administration, and nursing and midwifery services. These are mainly services that are frequently demanded and as they are first line services for any health service needed. However, they were not aware they were entitled dental healthcare services, radiological examinations, surgical services, radiotherapy, and physiotherapy services. These are services that are not frequently demanded. This implies that people will seek knowledge of services once they demand it.

NHIF outpatient benefit package have a positive and significant relationship with utilization of NHIF outpatient services by private university employees (r=.153*, P<0.05) β_1 = .071, P <0.05). This implies that NHIF outpatient benefit factors play an important and significant role when it comes to utilization of NHIF outpatient healthcare services by private University employees in Nairobi.

Study findings on perceived image of NHIF outpatient services factors showed respondents were in agreement that medical records confidentiality is maintained for future reference, customers are served on a first in first out basis, cleanliness is maintained in the facilities and that staff handling patients is clean. Respondents did not consider or were not sure of safety of healthcare services in these, the facilities being satisfactory, waiting time to be sufficient, that clinicians are available in the consultation rooms all the time, and that the number of health workers is enough.

Respondents stated that health workers do not show compassion to patients and there is discrimination in the facility between NHIF card holders and others with other insurance covers. Staff attitude was there a factor that respondents were concerned about. Respondents stated that the physical outlook of the facilities is not appealing, the health facilities amenities are not clean, there is no comfortable waiting bay in the facilities, there is no well-stocked pharmacy, there is no operational laboratory and drugs are not available all the time. This shows a gap in the amenities in the NHIF selected facilities as per the responses.

Perceived image of NHIF outpatient services had a positive and significant relationship with utilization of NHIF outpatient services by private university employees (r=.280**,

P<0.05), β_2 = .107, P <0.05**).** This implies that perceived image play an important and significant role when it comes to utilization of NHIF outpatient healthcare services by private University employees in Nairobi.

Study findings on NHIF communication strategy showed that respondents were in agreement that NHIF uses the most appropriate language to communicate, they understand whenever NHIF sends communication and that NHIF communicates the rules of selecting a facility. They disagreed that NHIF uses the most ideal means to communicate, NHIF communicates to them as often as they would like, NHIF offices have available staff to respond to issues, they are able to ask NHIF office questions whenever they want, NHIF has effective mechanisms to respond to feedback and complains, NHIF offices are conveniently located for easy access and that NHIF engages citizens for needs improvement. Therefore, NHIF communication strategy is not meeting the needs of the respondents.

NHIF communication strategy has a positive and significant relationship with utilization of NHIF outpatient services by private university employees (r=.284**, P<0.05) β_3 = .0.099 P <0.05**)**. This implies that NHIF communication strategy play an important and significant role when it comes to utilization of NHIF outpatient healthcare services by private University employees in Nairobi.

Study findings on NHIF administrative processes shows that respondents had selected an NHIF facility to receive outpatient care and had registered their dependents as NHIF beneficiaries. Respondents also agreed that the means of registering for NHIF are convenient and that the process of registering dependents is convenient. The respondents

disagreed that staff in NHIF accredited facilities are aware of patient's entitlements care, they are able to easily identify dependents care and that outpatient facility selection process is convenient. NHIF administrative processes related factors have a strong, positive and significant relationship with utilization of NHIF outpatient services by private university employees r= .380**, P<0.05). β_4 = .364, P < 0.05). The NHIF administrative processes play an important and significant role when it comes to utilization of NHIF outpatient healthcare services by private University employees in Nairobi.

Multiple regression analysis performed on the four independent variables (NHIF benefit package, perceived image of NHIF outpatient services, NHIF communication strategy and NHIF administrative processes) to test their combined significance on utilization of NHIF outpatient services by private University employees in Nairobi found that the prediction model was significant and valid (F_4, 258) = 13.401, P < 0.05**)**.

In summary of the four independent variables under study, the researcher found that only NHIF administrative processes (X_4; t = 4.579, P = 0.000 <0.05) have a statistically significant influence on utilization of NHIF outpatient services by private university employees in Nairobi. However, knowledge of NHIF outpatient benefit package (X_1; t = 1.142, p = 0.255 > 0.05), perceived image of NHIF outpatient services (X_2; t = 1.196, p = 0.241 > 0.05) and NHIF communication strategy (X_3; t = 1.196, p = 0.241 > 0.05) have no statistically significant influence on utilization of NHIF outpatient services by private university employees in Nairobi. Utilization of NHIF outpatient services will always exist even without the four factors under investigation in this study as indicated by the constant (t = 5.428, P = 0.000 < 0.05).

5.3 Conclusion

Knowledge of the NHIF benefit package have a positive and significant relationship with utilization of NHIF outpatient services by private university employees. Respondents are generally aware of their entitlement with least awareness on entitlement to dental healthcare services, radiological examinations, surgical services, radiotherapy, and physiotherapy services.

Perceived quality of NHIF outpatient services has a positive and significant relationship with utilization of NHIF outpatient services by private university employees. The main factors affecting the relationship are safety of healthcare services, waiting time, availability of physicians in the consultation rooms, insufficient number of health workers, lack of a well-stocked pharmacy and an operational laboratory.

NHIF communication strategy has a positive and significant relationship with utilization of NHIF outpatient services by private university employees. The respondents agreed with the NHIF language of communication. They disagreed with the means of communication, frequency of communication, availability of NHIF staff to respond to issues, NHIF feedback and complain mechanisms and lack of citizen's engagement for needs improvement by NHIF.

NHIF administrative processes have a strong, positive and significant relationship with utilization of NHIF outpatient services by private university employees. The main factors affecting utilization are lack of awareness by staff in NHIF accredited facilities on patient's

entitlement to care, process of dependents identification and outpatient facility selection process is convenient.

The researcher found that only NHIF administrative processes have a statistically significant influence on utilization of NHIF outpatient services by private university employees in Nairobi. Knowledge of NHIF outpatient benefit package, perceived image of NHIF outpatient services and NHIF communication strategy have no statistically significant influence on utilization of NHIF outpatient services by private university employees in Nairobi.

5.4 Recommendations

This study recommends that:

i. The NHIF should re-define its design model and strengthen its processes for wider membership and utilization.

ii. NHIF should improve on strategies of creating awareness on the NHIF outpatient benefit package to the members as respondents scored low of benefits in their package.

iii. NHIF should vet facilities they accredit to offer outpatient services to ensure safety of healthcare services, availability of physicians, and sufficient number of health workers, well-stocked pharmacy and operational laboratories.

iv. NHIF should improve on their means and frequency of communication, feedback and complains mechanisms, engage the citizens more for service improvement and ensure staff are available to respond to issues.

v. Staff in NHIF accredited health facilities should be made aware of patient's entitlement to care and ease patient's identification and facility selection process through easy to use and reliable electronic processes.

5.5 Suggested Areas for Further Research

i. Carry out a research on efficiency of NHIF in health provision to the informal sector employees to find out if the same variables influence utilization. The results of such a study would influence health policy on primary health care.

ii. Conduct a study on preferred National Insurance Scheme design among formal sector employees in Kenya. The study found respondents using various insurance covers for outpatient services. There is need to identify the preferred design based on what is currently used by the majority of respondents.

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APPENDIX 1: INFORMED CONSENT FORM

Kenya Methodist University
P. 0 Box 267-60200
MERU, Kenya

SUBJECT: INFORMED CONSENT

Dear Respondent,
My name is Keziah M. Kironji. I am a MSc student from Kenya Methodist University. I am conducting a study titled: Determinants of utilization of NHIF outpatient services by Private University employees in Nairobi County**.** The findings will be utilized to strengthen the health systems in Kenya and other Low-in- come countries in Africa. As a result, countries, communities and individuals will benefit from improved quality of healthcare services. This research proposal is critical to strengthening health systems as it will generate new knowledge in this area that will inform decision makers to make decisions that are research based.

Procedure to be followed
Participation in this study will require that I ask you some questions and also access all the hospital's department to address the six pillars of the health system. I will record the information from you in a questionnaire check list.

You have the right to refuse participation in this study. You will not be penalized nor victimized for not joining the study and your decision will not be used against you nor affect you at your place of employment.

Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions and you may stop an interview at any time. You may also stop being in the study at any time without any consequences to the services you are rendering.

Discomforts and risks.
Some of the questions you will be asked are on intimate subject and may be embarrassing or make you uncomfortable. If this happens; you may refuse to answer if you choose. You may also stop the interview at any time. The interview may take about 40 minutes to complete.

Benefits

If you participate in this study you will help us to strengthen the health systems in Kenya and other low-income countries in Africa. As a result, countries, communities and individuals will benefit from improved quality of healthcare services. This research is critical to strengthening the health systems as it will generate new knowledge in this area that will inform decision makers to make decisions that are research based.

Rewards

There is no reward for anyone who chooses to participate in the study.

Confidentiality

The interviews will be conducted in a private setting. Your name will not be recorded on the questionnaire and the questionnaires will be kept in a safe place at the University.

Contact Information

If you have any questions you may contact the following supervisors:

1. Dr. Wanja Head of Department of Health Systems Management of Kenya Methodist University, Nairobi campus.
2. Ms Eunice Mwangi: Lecturer at Kenya Methodist University, Nairobi campus.

Participant's Statement

The above statement regarding my participation in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study at any time. I understand that I will not be victimized at my place of work whether I decide to leave the study or not and my decision will not affect the way I am treated at my work place.

Name of Participant…….
Date……..
Signature…….

Investigator's Statement

I, the undersigned, have explained to the volunteer in a language s/he understands the procedures to be followed in the study and the risks and the benefits involved.

Name of Interviewer……Date…….

Interviewer Signature……

APPENDIX 2: QUESTIONNAIRE

Dear respondent,; My name is Keziah M. Kironji. I am an MSc student at Kenya Methodist University (KeMU). I am conducting a study titled: "**Determinants of utilization of NHIF outpatient services by Private University employees in Nairobi County".** The responses will remain confidential and will be used for academic purposes only. Thank you for taking time to respond to the questions. If you consent, please place a signature in the following space…….

Demographics

Age: …… Gender: M/F ……

Marital Status: Married……..Never married……Divorced…… Widowed……

Education level ……..

Occupation: ……..

Have you registered all your dependents under NHIF: Yes …….. No.....N/A……..

Does your spouse have a separate NHIF card? Yes ……. No.....N/A…….

I have a private health insurance policy: Yes ……. No.....

How do you often pay for your health services? Tick as appropriate.

- Out of pocket……
- NHIF card……
- Private health insurance……...

Key: SA= Strongly Agree, A = Agree, NS = Not sure, D = Disagree, SD = Strongly Disagree

	As an NHIF card holder, I and my registered dependents are entitled to the following services in the NHIF accredited facilities	**SA**	**A**	**NS**	**D**	**SD**
1	**NHIF Benefit Package (X_1)**					
1a	Consultation					
1b	Laboratory investigations					
1c	Drugs administration and dispensing					
1d	Dental Healthcare Services					
1f	Radiological Examinations					
1g	Nursing and Midwifery Services					
1h	Surgical Services					
1i	Radiotherapy					
1j	Physiotherapy Services					

	State the extent to which you agree with the following statements in regards to NHIF and its accredited facilities	SA	A	NS	D	SD
2	**Perceived Quality of NHIF Outpatient services (X_2)**					
2a	I consider the healthcare services in these facilities to be safe					
2b	Services in the facilities are satisfactory					
2c	Medical records confidentiality is maintained for future reference					
2d	The number of health workers is enough					
2e	The waiting time is sufficient					
2f	Clinicians are available in the consultation rooms all the time					
2g	Customers are served on a first in first out basis					
2h	Health workers show compassion to patients					
2i	There is no discrimination in the facility between NHIF card holders and others with other insurance covers					
2j	Cleanliness is maintained in the facilities					
2k	The physical outlook of the facilities is appealing					
2l	The health facilities amenities are clean					
2m	Staff handling patients are clean					
2n	There is a comfortable waiting bay in the facilities					
2o	There is a well-stocked pharmacy					
2p	There is an operational laboratory					
2q	Drugs are available for me all the time					
3	**NHIF Communication Strategy (X_3)**					
3a	NHIF uses the most ideal means to communicate to me (SMS, newspaper, TV, Radio)					
3b	NHIF communicates to me as often as I would like					
3c	NHIF communicates the rules of selecting a facility often					
3d	I have all the information regarding NHIF outpatient services					
3e	I know the rules of selecting a NHIF facility for outpatient services					
3f	I can select more than one facility for outpatient services					
3g	NHIF offices have available staff to respond to my issues					
3h	NHIF uses the most appropriate language to communicate with me					
3i	I understand whenever NHIF sends communication to me					
3j	I am able to ask NHIF office questions whenever I want					
3k	NHIF has effective mechanisms to respond to feedback and complains					
3l	NHIF offices are conveniently located for my access					
3m	NHIF engages citizens for needs improvement					
4	**NHIF Administrative processes (X_4)**					
4a	I have selected an NHIF facility to receive outpatient care					

4b	I have registered my spouse as a NHIF beneficiary					
4c	I have registered my children as NHIF beneficiaries					
4d	The means of registering for NHIF are convenient					
4e	The process of registering dependents is convenient					
4f	Staff in NHIF accredited facilities are aware of my entitlements					
4g	Staff in the facilities are easily able to identify dependents					
4h	The process of selecting facilities is convenient					
5	**Utilization of NHIF Outpatient services (Y)**					
5a	I have ever used my NHIF card to receive healthcare services					
5b	I will use the NHIF card to receive healthcare services when need arises					
5c	My dependents have ever used NHIF card to receive healthcare					
5d	My dependents will use the NHIF card to receive healthcare when need arises					

THANK YOU FOR YOUR COOPERATION

APPENDIX 3: NUMBER OF EMPLOYEES SAMPLED

S/N	Name of University	Total Number of staff	Number of employees interviewed	Number of fully completed questionnaires
1	Africa Nazarene University	81	23	22
2	Daystar University	119	26	24
3	Great Lakes University Nairobi	25	7	6
4	KCA University	112	20	20
5	Kenya Methodist University	178	44	42
6	MKU Nairobi Campus	132	43	41
7	Pan African Christian University	43	11	8
8	Pioneer International University	52	12	12
9	Riara University	75	18	18
10	St Paul University Nairobi Campus	29	9	7
11	Strathmore University	79	20	19
12	The East African University	13	3	3
13	United States International University (USIU)	110	31	31
14	Zetech University Nairobi Campus	52	11	10
	Total	1100	278	263

Source: HRM Departments of the Universities